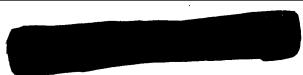
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30 August 1966

#### DIA Declassification/Release Instructions on File

This is the third group of items disseminated as part of NPIC/R-218/66. Southeast Asia Activity Report, POL Facilities, North Vietnam. Twenty items are included in this portion of the report, 16 newly reported sites and 4 updated items. The updated items are as follows:

Viet Tri Petroleum Products Storage, Al, A2, X-Al;
Hai Phong Petroleum Products Storage, Al5, X-Al5, X-Al6;
Duong Nham Petroleum Products Storage, Al7, Al8, X-Al7; and
Xom Duong Quan Petroleum Products Storage UC, B61, B62, X-B61.

NPIC will continue to disseminate new and updated items on a continuing basis as photography becomes available.

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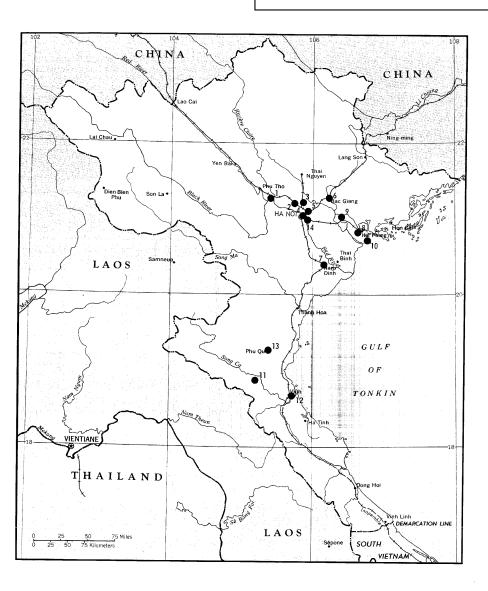
**Next 1 Page(s) In Document Exempt** 

#### TABLE OF CONTENTS CATEGORY A

25X1A <sub>BE No.</sub>	Installation Name	Page Nos.
25X1A <sub>BE No.</sub>	Viet Tri Petroleum Products Storage Phuc Yen Airfield Pol Storage Area Phuc Yen Petroleum Products Storage NNE Underground Ha Noi Petroleum Products Storage Thanh Am Nguyen Khe Petroleum Products Storage Bac Giang Petroleum Products Storage Nam Dinh Petroleum Products Storage Hai Phong Petroleum Products Storage Duong Nham Petroleum Products Storage	Page Nos.  A1, A2 A3, A4 A5, A6 A7, A8 A9, A10 A11, A12 A13, A14 A15, A16 A17, A18
	Do Son Petroleum Storage Phu Van POL Storage	A19, A20 A21, A22
	Vinh Petroleum Products Storage Phu Qui Petroleum Products Storage Hanoi/Gia Lam Airfield POL Storage Area	A23, A24 A25, A26 A27, A28

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### KEY TO CATEGORY A PERMANENT STORAGE AND HANDLING AREAS

- 1. Viet Tri Petroleum Products Storage
- 2. Phuc Yen Airfield POL Storage Area
- 3. Phuc Yen Petroleum Products Storage NNE UG
- 4. Ha Noi Petroleum Products Storage Thanh Am
- 5. Nguyen Khe Petroleum Products Storage
- 6. Bac Giang Petroleum Products Storage
- 7. Nam Dinh Petroleum Products Storage
- 8. Hai Phong Petroleum Products Storage
- 9. Duong Nham Petroleum Products Storage
- 10. Do Son Petroleum Storage
- 11. Phu Van POL Storage
- 12. Vinh Petroleum Products Storage
- 13. Phu Qui Petroleum Products Storage
- 14. Ha Noi/Gia Lam Airfield POL Storage Area

25X1C

25X1C	B04560A0055000CONFIDENTIAL	R-218/66
		R-218/00
25X1A		
BE NUMBER	WJ453547 UTM COORDINATES	2117N 10526E GEOGRAPHIC COORDINATES
NAME: VIET TRI	PETROLEUM PRODUCTS STORAGE	
CLAIRE RIVERS, 2 DESCRIPTION: PR: CYLINDRICAL TANN PHOTOGRAPHY AFTE TANKS, DISRUPTEL	IATELY SOUTH OF VIET TRI, AT THE 28 NM NW OF HA NOI. IOR TO FIRST STRIKE FACILITY COMES, 2 UNDERGROUND TANKS, AND 4 FOR SECOND STRIKE REVEALS 2 DESTON ABOVEGROUND PIPING, AND SEVENDE ARE AT DRUM TRANSSHIPMENT ARE TANK 1,570 TANK (EXCLUSIVE).  : AMS SERIES L701, SHEET 6074 AMS SERIES JOGG) 1501, SHE	ONTAINED 3 ABOVEGROUND MEDIUM HORIZONTAL SERVICE TANKS. TROYED AND 2 DAMAGED SERVICE RELY DAMAGED PUMPHOUSE. APPRO EA. VE OF UNDERGROUND TANKS)
PHOTO REFERENC		25X1D
RED RIVER RED RIVER	Poste de Huyen de Hac Tri	Then Hard Share Sh

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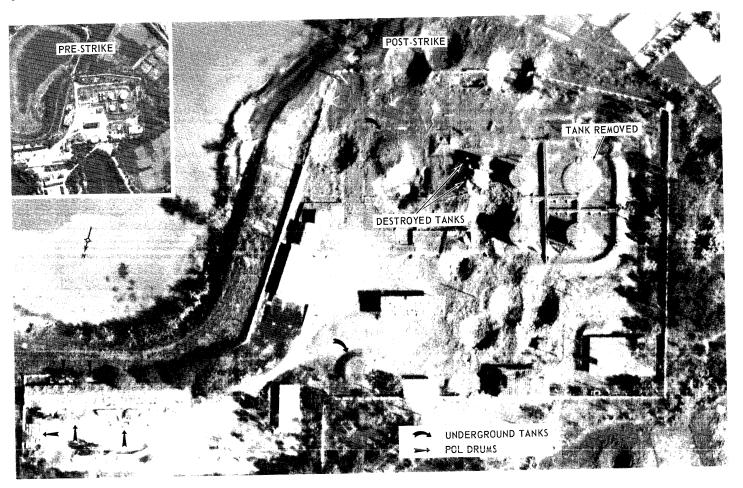
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R-218/66

WJ453547 UTM COORDINATES

VIET TRI PETROLEUM PRODUCTS STORAGE

2117N 10526E GEOGRAPHIC COORDINATES



25X1C	78B04560A005500010029-7	
25X1A		R-218/
BE NUMBER	WJ836482 UTM COORDINATES	2114N 10548E GEOGRAPHIC COORDINATE
NAME: PHUC YEN	AIRFIELD POL STORAGE AREA	
LOCATION: 0.8	NM NORTH OF PHUC YEN AIRFIELD (	
BUNKERED PROBAE	ACILITY CONTAINS 3 LARGE CYLINDR BLE POL TANKS, AND 7 SUPPORT BUI ELD BY AN ALL-WEATHER ROAD.	RICAL UNDERGROUND TANKS, 3 ILDINGS. AREA IS CONNECTED
ESTIMATED CAPAC	CITY: TANK 4,200 MT	
MAP REFERENCES	S: AMS SERIES L701, SHEET 6174- AMS SERIES JOG(G) 1501, SHEE	-I, 3D ED, DEC 59 (U) ET NF 48-11, 1ST ED, JUN 65
PHOTO REFERENC	CE:	25X1D
50	Dong Thom  The Deores:	Ap Duoc
49 Hi	Door Tron  Door Tron  Ton An  Yep Winh	Dac Talk N O R
48	Thools from	Both Huong Dirin Dong Twon  Nom Nom  Lec Nong
	Ap Queng He	Camelery Hoang During
	Dien Xq	Song Mai

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Α3

25X1C

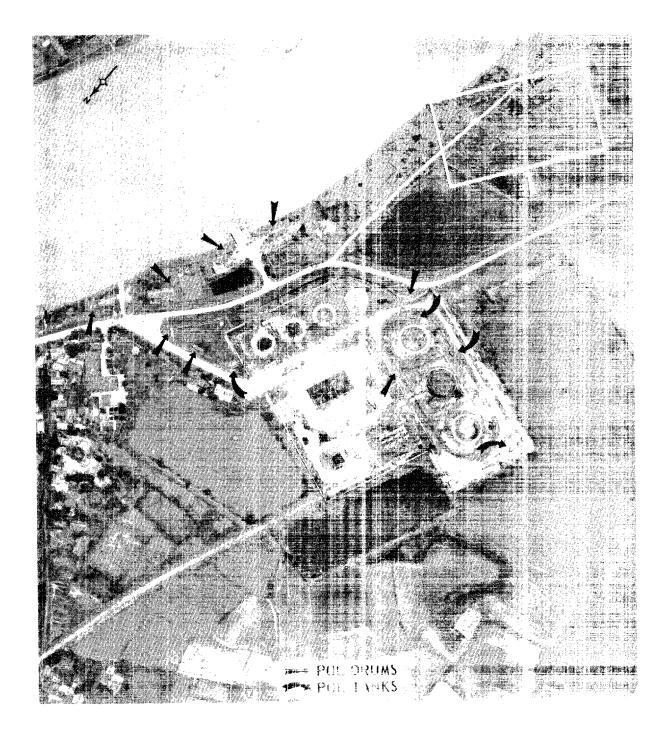
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## 25X14ppreved For Release 2003/05/15: CIA RDP78B04560A005500010029-7

MAM DIM PLIKER OUT IN HEALTH STORAGE

XH228576
UTM COORDINATES

GEOGRAPHIC ON



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R-218/66

25X1A

XJ730087 UTM COORDINATES 2052N 10639E GEOGRAPHIC COORDINATES

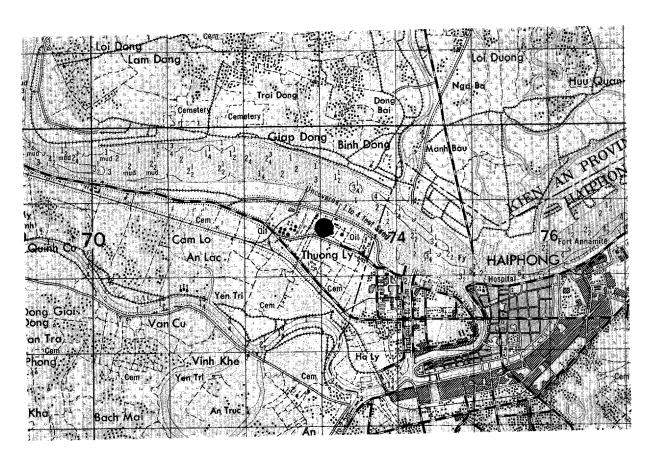
NAME: HAI PHONG PETROLEUM PRODUCTS STORAGE

LOCATION: 2 NM WNW OF HAI PHONG

DESCRIPTION: PRIOR TO STRIKE OF 29 JUN 66 FACILITY CONSISTED OF 30 ABOVE—GROUND CYLINDRICAL STORAGE TANKS AND 5 HORIZONTAL TANKS. PHOTOGRAPHY AFTER THE 3D STRIKE REVEALS 27 DESTROYED (5 DESTROYED BY 3D STRIKE) AND 8 DAMAGED TANKS. AT LEAST 15 LARGE AND 4 MEDIUM BURIED TANKS ON SOUTH BANK OF THE CUA CAM BETWEEN MIDDLE AND EASTERN PIERS OF THE FACILITY, WERE UNDAMAGED. ESTIMATED CAPACITY: RESIDUAL TANK CAPACITY 5, 146 MT (423 MT IN BURIED TANKS)

MAP REFERENCES: AMS SERIES L701, SHEET 6373-IV, 3D ED, JAN 61 (U)
AMS SERIES JOG(G) 1501, SHEET NF 48-16, 1ST ED, JUN 65 (U)

PHOTO REFERENCE: 25X1D



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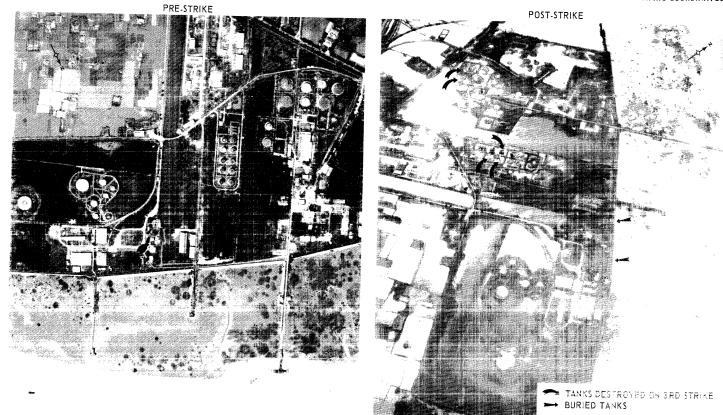
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XJ730087 UTM COORDINATES

HAI PHONG PETROLEUM PRODUCTS STORAGE

2052N 10639E GEOGRAPHIC COORDINATES



#### Approved For Release 2003/05/15 : CIA-RDP78B04560A005500010029-7

CONFIDENTIAL 25X1C R-218/66 XJ572260 UTM COORDINATES 2101N 10630E GEOGRAPHIC COORDINATES 25X1A BE NUMBER

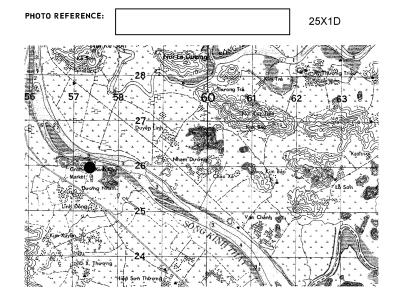
NAME: DUONG NHAM PETROLEUM PRODUCTS STORAGE

LOCATION: 0.4 NM NORTH OF DUONG NHAM AND 14.5 NM NW OF HAI PHONG

**DESCRIPTION:** PRE-STRIKE PHOTOGRAPHY REVEALS 4 VERTICAL ABOVEGROUND POL STORAGE TANKS, EACH WITH A U-SHAPED PROTECTION WALL, AND 3 PROBABLE TANK BASES LOCATED AT THE BASE OF A KARST HILL.
POST-STRIKE PHOTOGRAPHY REVEALS 2 TANKS DESTROYED AND 1 DAMAGED, ONE HUNDRED AND THIRTY-SEVEN DRUMS ARE IN OPEN STORAGE ALONG THE RIVER BANK.

ESTIMATED CAPACITY: PRE-STRIKE TANK 4,920 MT, POST-STRIKE TANK 2,460 MT

DRUM 27 MT MAP REFERENCES: AMS SERIES L701, SHEET 6374 III, 1ST ED, APR 65 (U) AMS SERIES JOG(G) 1501, SHEET NE 48-12, 3D ED, JUN 65 (U)



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XJ572260 UTM COORDINATES

DUONG NHAM PETROLEUM PRODUCTS STORAGE

2101N 10630E
GEOGRAPHIC COORDINATES





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L		R-218/66
2 <del>5X1A</del>	XH871905 UTM COORDINATES	2042N 10647E GEOGRAPHIC COORDINATES
NAME: DO SON PETR		
	ON PENNINSULA, 0.5 NM SE OF	
DESCRIPTION: STOR CIRCULAR BLAST WAI	AGE AREA CONSISTS OF 2 VERI LLS, LOCATED AT BASE OF HILL	TICAL ABOVEGROUND TANKS, EACH W
ESTIMATED CAPACIT	Y: TANK 3.400 MT	
	NE CERTEC 1701 CHEET 637	3-II, 1ST ED, JUN 64 (U)
<b>,,,,,,</b>	AMS SERIES JOG(G) 1501, SHI	EET NF 48-12, 1ST ED, JUN 65 (
PHOTO REFERENCE:		25X1D
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	5 ga ( 15 ga ) i	112
		2 22
	What losepatine	Dò Hài
Phu Nài	Booil Thân	Dò Hài 2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
:Phu Nói	Booil Thân	Dò Hài
Phu No.	Market Thomas Do Son Terrary	Do Hai  2 2 2 2 2 2 3 3 3 3 5 5 7 1 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
Phu Noil	Maries Avrien A Color of Service Avrience Avr	Db Hái 2 22 22 2 22 2 22 3 Sốm 2 22
	Maries Avrien A Color of Service Avrience Avr	Do Hai  2 2 2 2 2 2 2 3 3 3 5 5 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7

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25X1C

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#### 25X1A

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Van Lung Petroleum Products Storage UG	B3, B4
Van Lung Petroleum Products Storage West UG	B5 <b>,</b> B6
Hoang Mai POL Storage Area	B <b>7,</b> B8
Ha Noi Petroleum Products Thi Cam	B9, B10
Bai Thuong Petroleum Products Storage UG Southeast	B11, B12
Son La Petroleum Products Storage	B13, B14
Thuong Thon Petroleum Products Storage UG	B15, B16
Ngoc Son Petroleum Products Storage PUG	B17, B18
Thai Lai Petroleum Products Storage	B19, B20
Yen Hau Petroleum Products Storage PUG	B21, B22
Thanh Lang Petroleum Products Storage PUG	B23, B24
Ha Noi Petroleum Products Storage UG Thanh Liet (Area 1)	B25, B26
Ha Noi Petroleum Products Storage UG Thanh Liet (Area 2)	B2 <b>7,</b> B28
Bang So Petroleum Products Storage PUG	B29, B30
Son Chau Petroleum Products Storage PUG	B31, B32
Kep Petroleum Products Storage	B33, B34
Ha Noi Petroleum Products Storage Duc Noi (Area 1)	B35, B36
Ha Noi Petroleum Products Storage Duc Noi (Area 2)	B37, B38
Ha Noi Petroleum Products Storage Duc Noi (Area 3)	B39, B40
Ha Noi Petroleum Products Storage Duc Noi (Area 4)	B41, B42
Cu Van Petroleum Products Storage	B43, B44
Cu Van Petroleum Products Storage East UG	B45, B46
Dao Quan Petroleum Products Storage East	B47, B48
Dao Quan Petroleum Products Storage West	B49 <b>,</b> B50
Nam Dinh Petroleum Products Storage PUG	B51, B52
Tung Tu Petroleum Products Storage UG	B53, B54
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Phuc Yen Airfield POL Storage Area 2	B57, B58
Xom Duong Quan Petroleum Products Storage UG East	B59, B60
Xom Duong Quan Petroleum Products Storage UG	B61, B62

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### TABLE OF CONTENTS CATEGORY B (Continued)

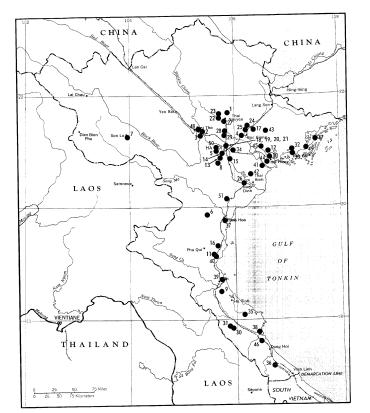
25X1A	Installation Name	Page Nos.
	Tho Trang Petroleum Products Storage	B79, B80
	Ninh Giang Petroleum Products Storage	B81, B82
	Viet Yen Petroleum Products Storage	B83, B84
	Kep Ha Petroleum Products Storage	B85, B86
	Tien Hoi Petroleum Products Storage	B87, B88
	Dong Mai Petroleum Products Storage	B89, B90
	Xom Lang POL Storage	B91, B92
	Van Hoa POL Storage	B93, B94
	Phu Lo Petroleum Products Storage NNE Underground	B95, B96
	Jaune Island POL Storage	B97, B98
	Co Nhue Hoang POL Storage	B99, B100
	Quang Suoi Petroleum Products Storage	B101, B102

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#### KEY TO CATEGORY B DISPERSED STORAGE AREAS

- 1. Thai Nguyen Petroleum Products PUG South
- Van Lung Petroleum Products Storage UG
- Van Lung Petroleum Products Storage West UG
   Hoang Mai POL Storage Area
- Ha Noi Petroleum Products Thi Cam
- Bai Thuong Petroleum Products Storage UG Southeast Son La Petroleum Products Storage
- Thuong Thon Petroleum Products Storage UG
- Ngoc Son Petroleum Products Storage PUG
- 10. Thai Lai Petroleum Products Storage
- 11. Yen Hau Petroleum Products Storage PUG
- Thanh Lang Petroleum Products Storage PUG
   Ha Noi Petroleum Products Storage UG Thanh Liet (Area 1)
- 14. Ha Noi Petroleum Products Storage UG Thanh Liet (Area 2)
- 15. Bang So Petroleum Products Storage PUG16. Son Chau Petroleum Products Storage PUG
- 17. Kep Petroleum Products Storage
- 17. Kep Petroleum Products Storage
  18. Ha Noi Petroleum Products Storage Duc Noi (Area 1)
  19. Ha Noi Petroleum Products Storage Duc Noi (Area 2)
- 20. Ha Noi Petroleum Products Storage Duc Noi (Area 3) 21. Ha Noi Petroleum Products Storage Duc Noi (Area 4)
- Cu Van Petroleum Products Storage
   Cu Van Petroleum Products Storage
   Cu Van Petroleum Products Storage East UG
- 24. Dao Quan Petroleum Products Storage East
- 25. Dao Quan Petroleum Products Storage West26. Nam Dinh Petroleum Products Storage PUG
- 27. Tung Tu Petroleum Products Storage UG 28. Phuc Yen Airfield POL Storage Area 1

- Pine Yen Airfield POL Storage Area 2
   Duong Quan Petroleum Products Storage UG East
   Xom Duong Quan Petroleum Products Storage UG East
   Xom Duong Quan Petroleum Products Storage UG
- 32. Nui Tap Tinh POL Storage Area
- 33. Sac Le POL Storage Area
- 34. Phu Dong POL Storage Area
- 35. Thuan Le POL Storage Area 36. My Duc POL Storage Area
- 37. Thanh Hoa POL Storage Area
- 38. Ba Don POL Storage Area
- 39. Phuc Loi Petroleum Products Storage Navy

- 40. Tho Trang Petroleum Products Storage
- 41. Ninh Giang Petroleum Products Storage 42. Viet Yen Petroleum Products Storage
- 43. Kep Ha Petroleum Products Storage
- 44. Tien Hoi Petroleum Products Storage45. Dong Mai Petroleum Products Storage46. Xom Lang POL Storage
- 47. Van Hoa POL Storage
- 48. Phu Lo Petroleum Products Storage NNE UG
- 49. Jaune Island POL Storage
- 50. Co Nhue Hoang POL Storage
- 51. Quang Suoi Petroleum Products Storage

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25X1C

### CONFIDENTIAL P-218/66

25X1A WJ877956 UTM COORDINATES

2139N 10550E GEOGRAPHIC COORDINATES

NAME: THAI NGUYEN PETROLEUM PRODUCTS PUG SOUTH

LOCATION: 4.1 NM NORTH OF THAI NGUYEN AND 0.8 NM EAST OF VAN HAO

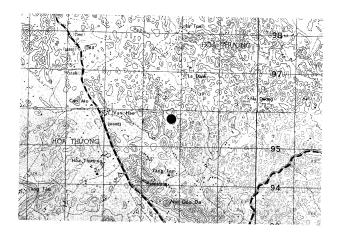
DESCRIPTION: STORAGE AREA CONSISTS OF 2 ADJACENT SITES. FAST AREA CONTAINS APPROXIMATELY 116 BUNKERED TANKS, 6 UNBURIED MEDIUM TANKS, 15 EXCAVATIONS, AND APPROXIMATELY 4,000 DRUMS DISPERSED UNDER TREES. WEST AREA, 0.3 NM WEST, CONTAINS AT LEAST 475 DRUMS IN OPEN STORAGE AND IN 9 EXCAVATIONS AND 9 ADDITIONAL EXCAVATIONS. BOMB CRATERS ARE OBSERVED IN EACH AREA.

ESTIMATED CAPACITY: TANK 1,464 MT DRUM 895 MT

MAP REFERENCES: AMS SERIES L701, SHEET 6175-I, 1ST ED, OCT 63 (U) AMS SERIES JOG(6) 1501, SHEET NF 48-11, 1ST ED, JUN 65 (U)

PHOTO REFERENCE:

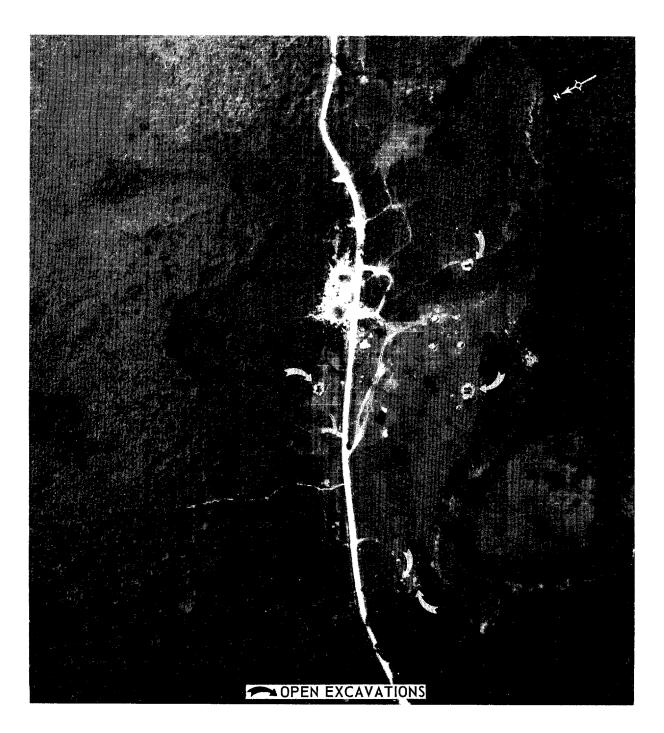
25X1D



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R-218/66

XOM DUONG QUAN PETROLEUM PRODUCTS STORAGE UG EAST WE919764 1752N 10552E GEOGRAPHIC COORDINATES



R-218/66

25X1A

WE895768
UTM COORDINATES

1752N 10550E GEOGRAPHIC COORDINATES

NAME: XOM DUONG QUAN PETROLEUM PRODUCTS STORAGE UG

LOCATION: ALONG ROUTE 101 NORTH OF XOM DUONG QUAN

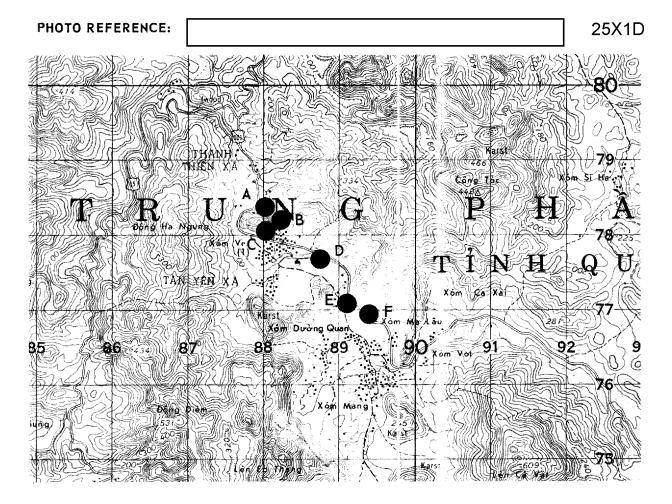
DESCRIPTION: AREA CONSISTS OF STORAGE AND EQUIPMENT ON BOTH SIDES OF ROUTE 101 IN VICINITY OF XOM DUONG QUAN. AREA A -- 3 FUEL TANK TRAILERS. AREA B -- 16 DRUMS IN TRENCH. AREA C -- AT LEAST 30 DRUMS IN BOMB CRATER. AREA D -- APPROXIMATELY 50 DRUMS IN SHORT TRENCHES. AREA E -- 2 FUEL TANK TRUCKS. AREA F -- 2 BURIED TANKS.

ESTIMATED CAPACITY: TANK 24 MT

DRUM 19 MT

MAP REFERENCES: AMS SERIES L7014, SHEET 6144 I, 1ST ED, 1965 (U)

AMS SERIES JOG (G) 1501, SHEET NE 48-11, 1ST ED, JUN 65 (U)



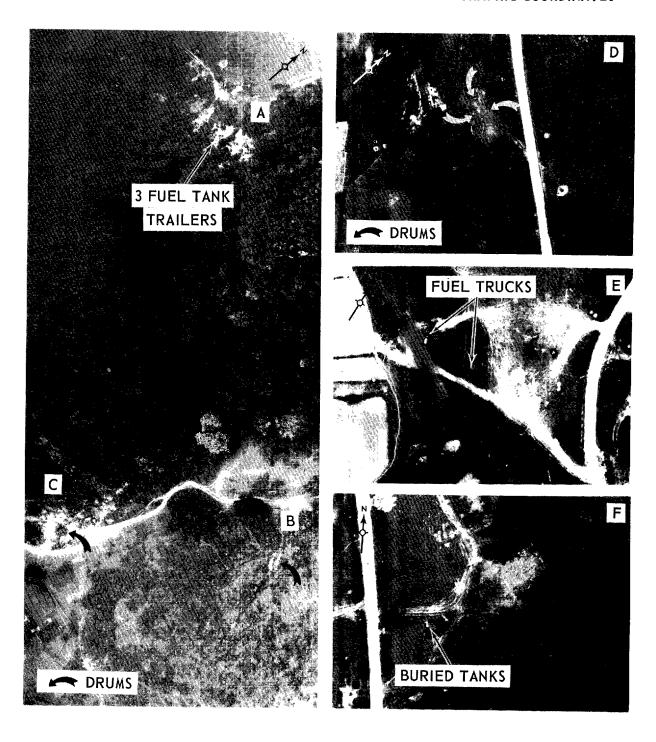
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R-218/66

XOM DUONG QUAN PETROLEUM PRODUCTS STORAGE UG

WE895768
UTM COORDINATES

1752N 10550E
GEOGRAPHIC COORDINATES



2103N 10648E XJ870300 0616-GEOGRAPHIC COORDINATES UTM COORDINATES BE NUMBER

NAME: NUI TAP TINH POL STORAGE AREA

1.5 NM NORTH OF NUI TAP TINH AND 1.7 NM NE OF THE WONG BI LOCATION:

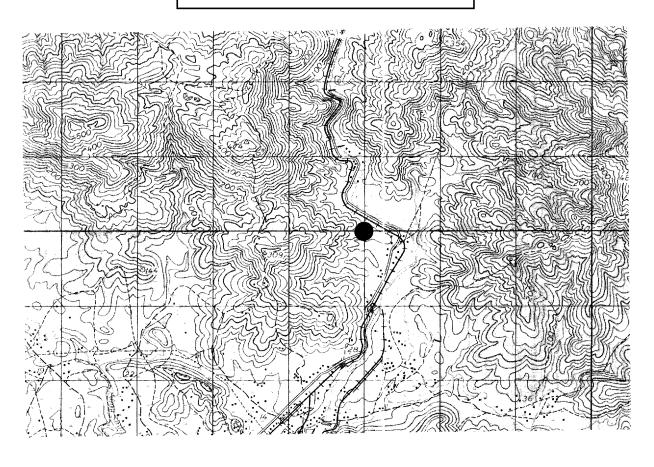
THERMAL POWERPLANT

DESCRIPTION: AREA CONTAINS 12 EXCAVATIONS, 2 CONTAINING 1 HORIZONTAL TANK EACH AND 3 MORE CONTAINING A TOTAL OF AT LEAST 13 POL DRUMS. THE REMAINING EXCAVATIONS ARE EMPTY.

ESTIMATED CAPACITY: TANK 24 MT DRUM 2.6 MT

MAP REFERENCES: AMS SERIES L7014, SHEET 6351 II, 1ST ED, 1965 (U)
AMS SERIES JOG(G), 1501, SHEET NF 48-12, 1ST ED, JUN 65 (U)

PHOTO REFERENCE: 25X1D



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				R-218/66

PHUC LOI PETROLEUM PRODUCTS STORAGE NAVY

WF786702
UTM COORDINATES

1843N 10544E **GEOGRAPHIC COORDINATES** 



R-218/66

25X1A

DE NOMBER

WG661179 UTM COORDINATES 1909N 10537E GEOGRAPHIC COORDINATES

NAME: THO TRANG PETROLEUM PRODUCTS STORAGE

LOCATION: 0.5 NM EAST OF THO TRANG AND ADJACENT TO THE THANH HOA/VINH

RAIL LINE

DESCRIPTION: AREA CONTAINS 6 BURIED TANKS POSSIBLY CONNECTED TO RAILYARD AREA BY ABOVEGROUND PIPELINE. ANOTHER AREA WITH AT LEAST 4 BURIED TANKS IS LOCATED ON A LOOP ROAD ON THE WEST SLOPE OF A HILL ON THE WESTERN SIDE OF THE RAIL LINE. APPROXIMATELY 100 DRUMS ARE IN THE GENERAL AREA.

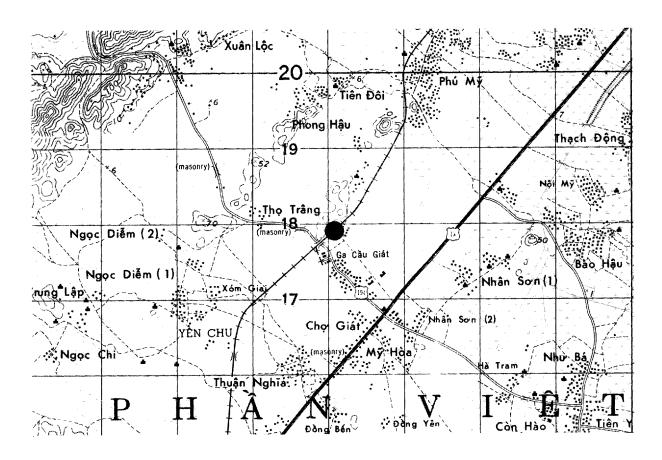
ESTIMATED CAPACITY: TANKS 120 MT DRUM 20 MT

MAP REFERENCES: AMS SERIES L7014, SHEET 6147 III, 1ST ED, 1965 (U)

AMS SERIES JOG(G) 1501, SHEET NE 48-3, 1ST ED, JUN 65 (U)

PHOTO REFERENCE:

25X1D



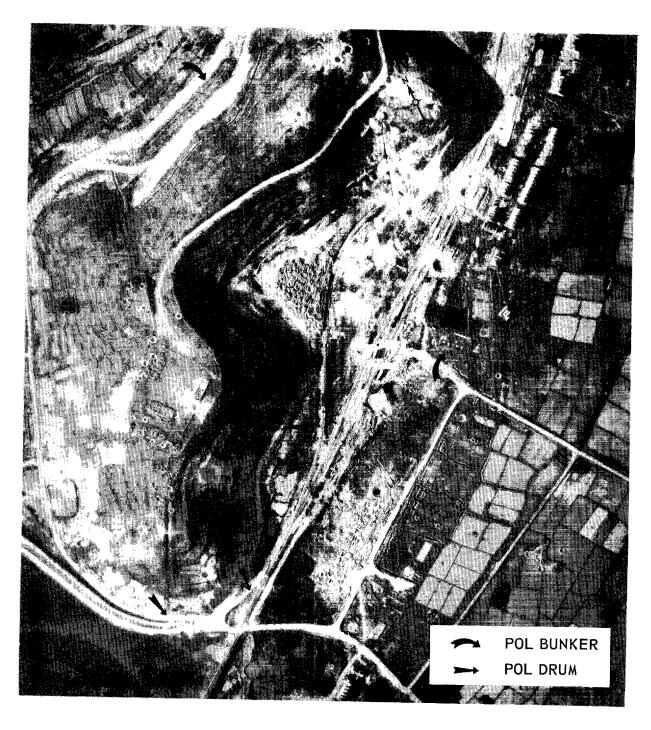
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THO TRANG PETROLEUM PRODUCTS STORAGE

R-218/66

WG661179 UTM COORDINATES

1909N 10537E
GEOGRAPHIC COORDINATES



25X1A

RE NOWREK

XH592964
UTM COORDINATES

2045N 10631E GEOGRAPHIC COORDINATES

NAME: NINH GIANG PETROLEUM PRODUCTS STORAGE

LOCATION: 7.3 NM ENE OF NINH GIANG AND 10.8 NM SW OF HAI PHONG

DESCRIPTION: AREA CONSISTS OF AT LEAST 13 PARTIALLY BURIED AND 14 BURIED POL TANKS ALONG THE NORTH BANK OF AN UNNAMED CANAL CONNECTING THE SONG VAN UC (RIVER) WITH THE SONG THAI BINH (RIVER). APEA IS SERVED BY A DRY-WEATHER ROAD. PHOTOGRAPHY OF \_\_\_\_\_\_\_ REVEALS SITE HAS BEEN BOMBED, BUT THE QUALITY OF THE PHOTOGRAPHY PRECLUDES AN ADEQUATE ASSESSMENT OF DAMAGE.

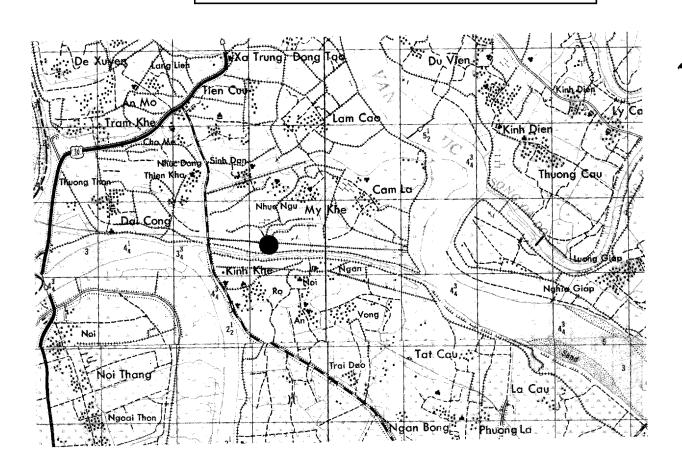
ESTIMATED CAPACITY: PRE-STRIKE TANK 324 MT

MAP REFERENCES: AMS SERIES L7014, SHEET 6350 IV, 1ST ED, 1965 (U)

AMS SERIES JOG(G) 1501, SHEET NF 48-16, 1ST ED, JUN 65 (U)

PHOTO REFERENCE:

25X1D



25X1C

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25X1

R-218/66

NINH GIANG PETROLEUM PRODUCTS STORAGE

XH592964
UTM COORDINATES

2045N 10631E
GEOGRAPHIC COORDINATES



25X1C B82

0616-BE NUMBER

25X1C

XH284845
UTM COORDINATES

2039N 10614E GEOGRAPHIC COORDINATES

NAME: VIET YEN PETROLEUM PRODUCTS STORAGE

LOCATION: 0.7 NM WEST OF VIET YEN AND 31 NM SE OF HA NOI ON NORTH BANK OF THE SONG LUOC (CANAL DES BAMBOUS).

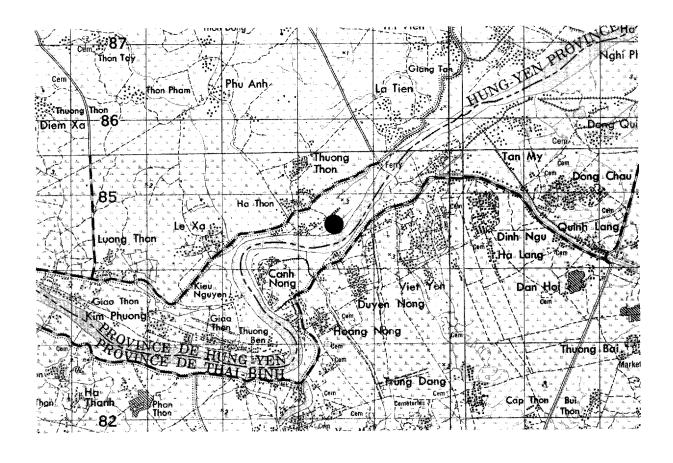
DESCRIPTION: AREA CONTAINS A TOTAL OF 120 BURIED TANKS IN 10 BUNKERS WITH 12 TANKS PER BUNKER. A PROBABLE BARGE BUNKERING AREA IS LOCATED JUST SOUTH OF POL STORAGE AREA.

ESTIMATED CAPACITY: TANK 1,440 MT

MAP REFERENCES: AMS SERIES L701, SHEET 6272 IV, 3D ED, MAR 61 (U)

AMS SERIES JOG(G) 1501, SHEET NF 48-15, 1ST ED JUN 65 (U)

PHOTO REFERENCE: 25X1D



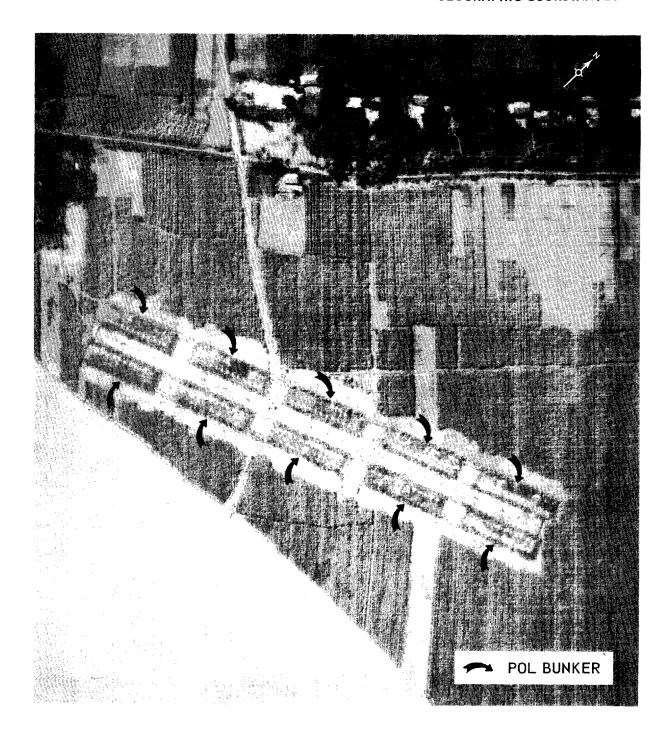
# CONFIDENTIAL 25X1 (Approved For Release 2003/05/15 : CIA-RDP78B04560A00550p010029-7

R-218/66

VIET YEN PETROLEUM PRODUCTS STORAGE

XH284845
UTM COORDINATES

2039N 10614E
GEOGRAPHIC COORDINATES



# 25XApproved For Release 2003/05/15 : CIA-RDP78B04560A005500010029-7

R-218/66

0616-BE NUMBER XJ715653
UTM COORDINATES

2123N 10639E
GEOGRAPHIC COORDINATES

NAME: KEP HA PETROLEUM PRODUCTS STORAGE

LOCATION: 0.7 NM WEST OF KEP HA AIRFIELD

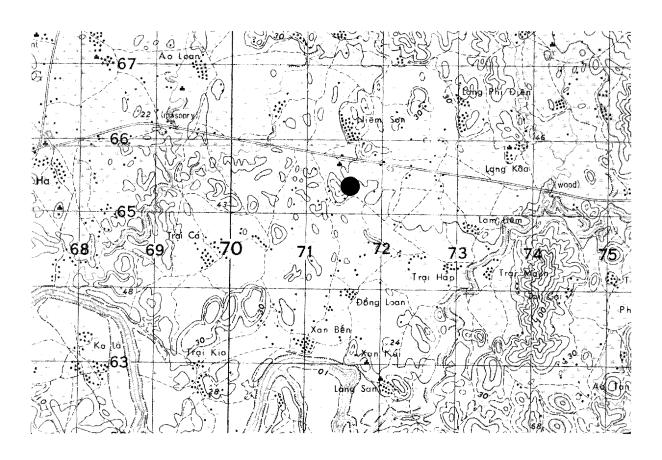
DESCRIPTION: THE AREA CONTAINS 8 POL TANKS IN BUNKERED STORAGE ON A SMALL HILL. THERE ARE 2 SUPPORT BUILDINGS AND 2 PROBABLE FUEL DISPENSING PUMPS. SITE IS SERVED BY LOOP ROAD.

ESTIMATED CAPACITY: TANK 96 MT

MAP REFERENCES: AMS SERIES L701, SHEET 6375 III, 1ST ED, MAR 63 (U)

AMS SERIES JOG(G) 1501, NF 48-12, 1ST ED, JUN 65 (U)

PHOTO REFERENCE: 25X1D



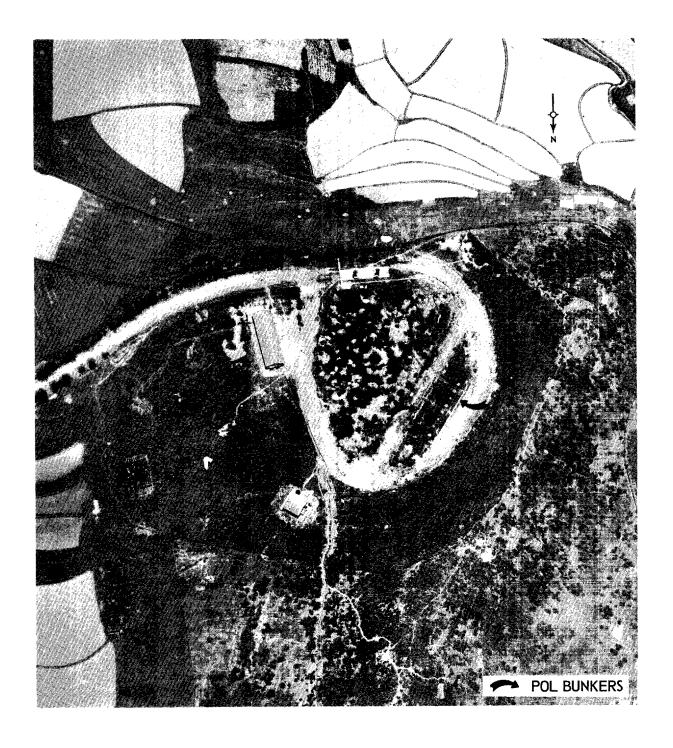
### 25 Митоved For Release 2009 16719 ENTIAPP78В04560Д005500010029-7

R-218/66

KEP HA PETROLEUM PRODUCTS STORAGE

XJ715653
UTM COORDINATES

2123N 10639E
GEOGRAPHIC COORDINATES



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0616-- XJ652038 2049N 10635E
BE NUMBER UTM COORDINATES GEOGRAPHIC COORDINATES

NAME: TIEN HOI PETROLEUM PRODUCTS STORAGE

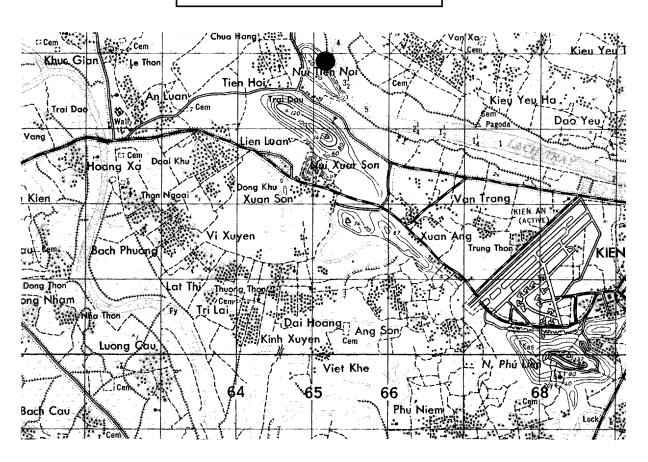
LOCATION: ON THE SW BANK OF THE SONG DAO LACH TRAY (CANAL), 0.4 NM EAST OF TIEN HOI, AND 2 NM NW OF HAIPHONG/KIEN AN AIRFIELD DESCRIPTION: THE AREA CONTAINS 39 BUNKERED POL TANKS ALONG THE CANAL BANK AT THE BASE OF A HILL. FACILITIES INCLUDE 4 SUPPORT BUILDINGS AND A RIVER CRAFT LANDING. AREA IS SERVED BY AN ALL-WEATHER ROAD. ONE TANK TRUCK, 1 CARGO TRUCK, AND 3 TRAILERS APPEAR ON THE GRAPHIC.

ESTIMATED CAPACITY: TANK 468 MT

MAP REFERENCES: AMS SERIES L701, SHEET 6373 III, 3D ED, MAY 60 (U)

AMS SERIES JOG(G) 1501, SHEET NF 48-16, 1ST ED, JUN 65 (U)

PHOTO REFERENCE: 25X1D



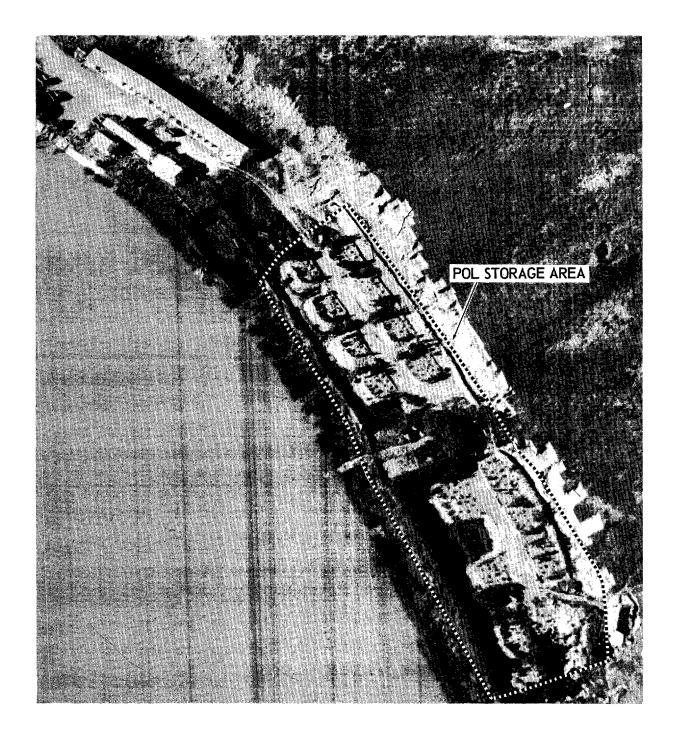
# Approved For Release 2003/05/15 : ENTIAL 78B04560A005500010029-7

R-218/66

TIEN HOI PETROLEUM PRODUCTS STORAGE

XJ652038
UTM COORDINATES

2049N 10635E
GEOGRAPHIC COORDINATES



# 25X1CApproved For Release 2003/05/15: CIA-REP78B04560A005500010029-7

R-218/66

25X1A

**BE NUMBER** 

XJ551318

2104N 10629E

UTM COORDINATES

GEOGRAPHIC COORDINATES

NAME: DONG MAI PETROLEUM PRODUCTS STORAGE

LOCATION: 1.8 NM ESE OF DONG MAI

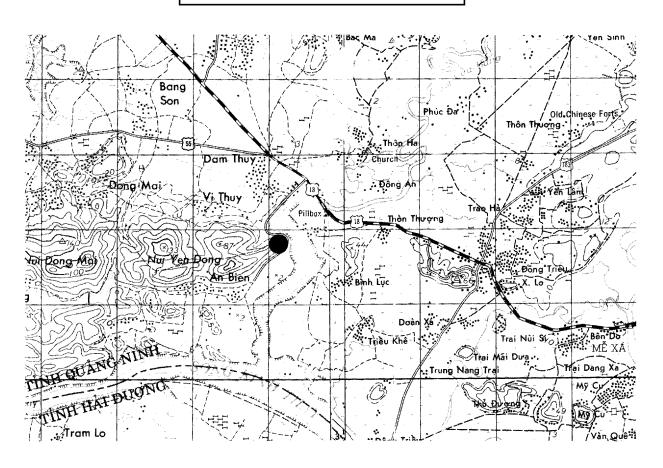
DESCRIPTION: AREA CONTAINS 2 ROWS OF BUNKERED POL TANKS WITH A TOTAL OF

AT LEAST 23 TANKS AND EXCAVATIONS FOR 4 ADDITIONAL TANKS.

ESTIMATED CAPACITY: TANK 276 MT

MAP REFERENCES: AMS SERIES L7014, SHEET 6251 II, 1ST ED, OCT 63 (U) AMS SERIES JOG(G) 1501, SHEET NF 48-11, JUN 65 (U)

**PHOTO REFERENCE:** 25X1D



# 25X16pproved For Release 2003/05/15 : CIA-RDF78B04560A005500p10029-7

R-218/66

DONG MAI PETROLEUM PRODUCTS STORAGE

XJ551318
UTM COORDINATES

2104N 10629E
GEOGRAPHIC COORDINATES



P-218/66

0617- XE521486 1737N 10626E
BE NUMBER UTM COORDINATES GEOGRAPHIC COORDINATES

NAME: XOM LANG POL STORAGE

LOCATION: 1.2 NM WEST OF XOM LANG AND 14.1 NM NW OF DONG HOI, SOUTH OF

ROUTE 107

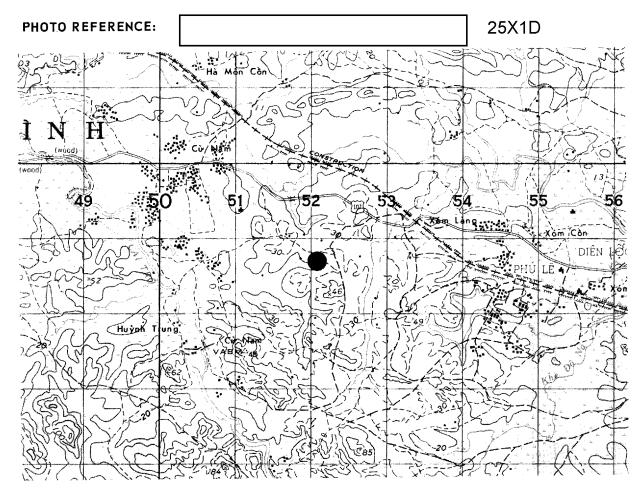
DESCRIPTION: AREA CONTAINS AT LEAST 27 POL TANKS IN 9 BUNKERS. ONLY 24

TANKS IN 8 BUNKERS ARE ON THE GRAPHIC.

ESTIMATED CAPACITY: TANK 312 MT

MAP REFERENCES: AMS SERIES L7014, SHEET 6244 II, 1ST ED, 1965 (U)

AMS SERIES JOG(G) 1501, SHEET NE 48-11, 1ST ED, DEC 65 (U)

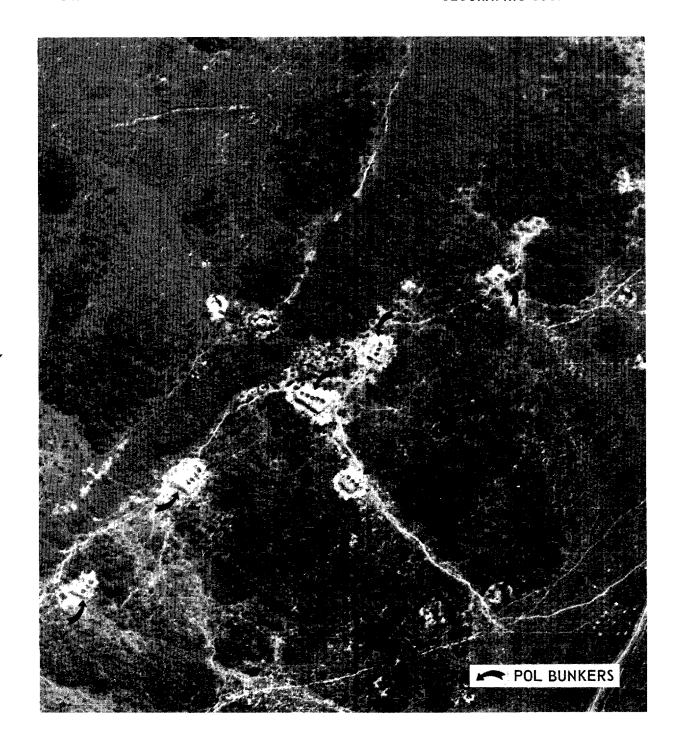


R-218/66

XOM LANG POL STORAGE

XE521486
UTM COORDINATES

1737N 10626E
GEOGRAPHIC COORDINATES



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R-218/66

0615-BE NUMBER

YJ669467 YJ667464 UTM COORDINATES

2112N 10734E
GEOGRAPHIC COORDINATES

NAME: VAN HOA POL STORAGE

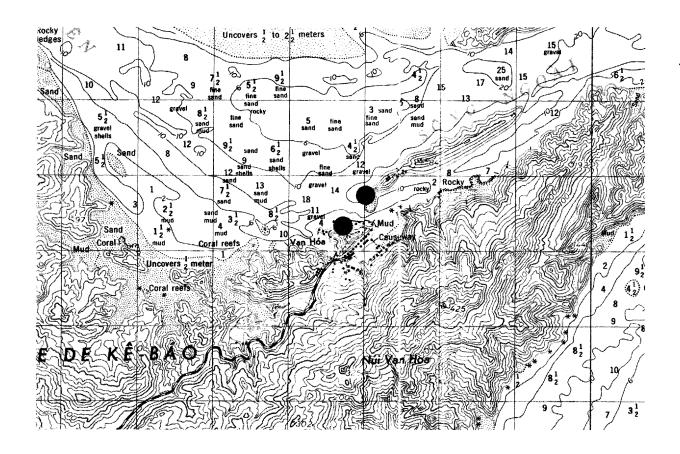
LOCATION: AT 2 LOCATIONS, 1 IMMEDIATELY WEST OF VAN HOA (PORT WALLUT) AND THE OTHER ON THE SW TIP OF AN UNNAMED ISLAND 0.2 NM NORTH OF THE PORT DESCRIPTION: EACH OF THE 2 AREAS CONTAINS 6 POL TANKS. THE 6 POL TANKS AT VAN HOA ARE IN A RECESSED AREA ON A HILL.

ESTIMATED CAPACITY: TANK 144 MT

MAP REFERENCES: AMS SERIES L7014, SHEET 6551 III, 1ST ED, 1965 (U)

AMS SERIES JOG(G) 1501, SHEET NF 48-12, 1ST ED, JUN 65 (U)

PHOTO REFERENCE: 25X1D



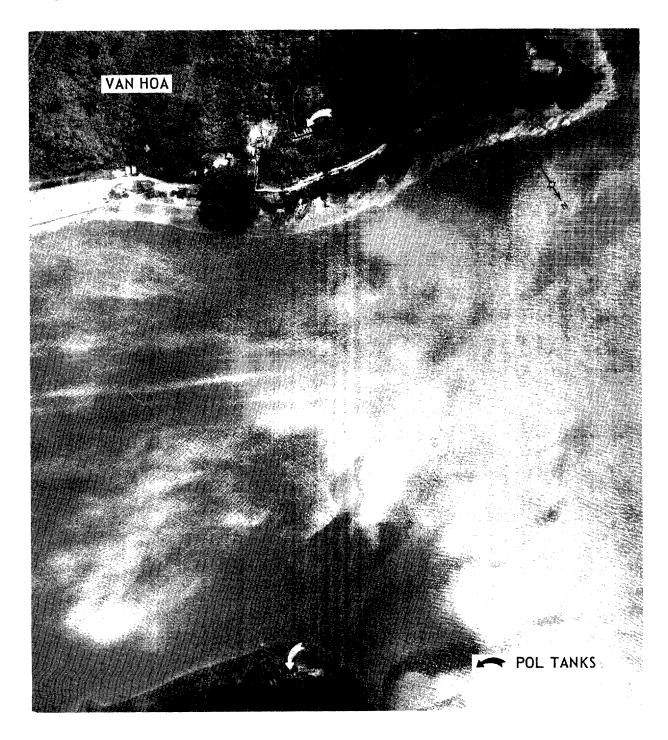
### 25XApproved For Release 200300 FDENT AP78B04560A005500010029-7

R-218/66

VAN HOA POL STORAGE

YJ669467 YJ667464 UTM COORDINATES

# 2112N 10734E GEOGRAPHIC COORDINATES



# 

R-218/66

25X1A

BE NUMBER

WJ321688 UTM COORDINATES 2124N 10518E
GEOGRAPHIC COORDINATES

NAME: PHU LO PETROLEUM PRODUCTS STORAGE NNE UNDERGROUND

LOCATION: 0.2 NM NE OF ROUTE 2 AND 0.6 NM NME OF PHU LO

DESCRIPTION: MAIN PART OF SITE CONSISTS OF 15 BUNKERED POL TANKS. THERE ARE AT LEAST 4 MORE BUNKERED POL TANKS AND EXCAVATIONS FOR 8 MORE 300 YARDS SE.

SITE IS SERVED BY SECONDARY ROAD OFF ROUTE 2.

ESTIMATED CAPACITY: TANK 228 MT

MAP REFERENCES: AMS SERIES L701, SHEET 6075 II, 1ST ED, JAN 64 (U)

AMS SERIES JOG(G) 1501, SHEET NF 48-11, 1ST ED, JUN 65 (U)

PHOTO REFERENCE: 25X1D Dòng Liên (wood) 70<del>-</del>₽ (wood), . Xóm Tri Lang Q PHU NHAM . O. CANH PHÚ Lang Anh Gê Hi 67 ¿Lỗ Chì Phú Lỗ

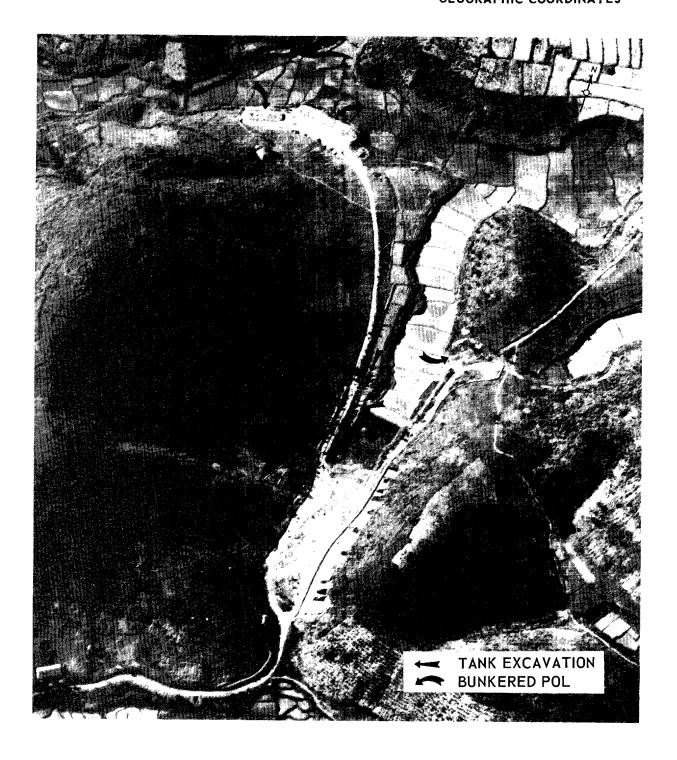
# 25X1C CONFIDENTIAL Approved For Release 2003/05/15 : CIA-RDF78B04560A005500010029-7

R-218/66

PHU LO PETROLEUM PRODUCTS STORAGE NNE UNDERGROUND

WJ321688
UTM COORDINATES

2124N 10518E
GEOGRAPHIC COORDINATES



# 25X1C Approved For Release 2003/05/15 CIA-RDP78B04560A005500010029-7

R-218/66

0616-BE NUMBER YJ471281 UTM COORDINATES 2102N 10722E
GEOGRAPHIC COORDINATES

NAME: JAUNE ISLAND POL STORAGE

LOCATION: NE SIDE OF JAUNE ISLAND, 0.9 NM NNE OF CAM PHA PORT

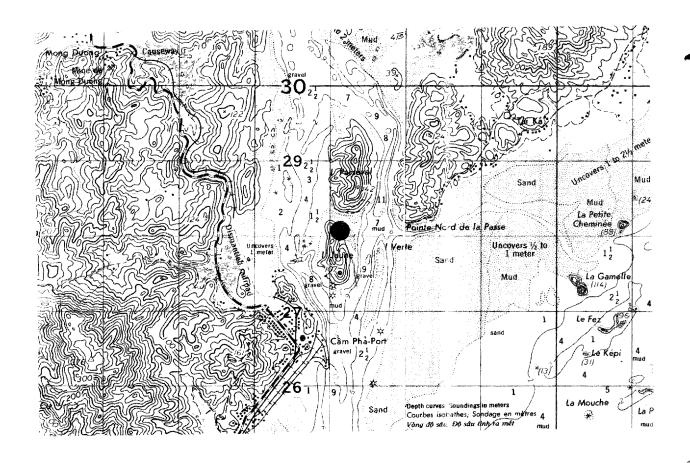
DESCRIPTION: AREA CONTAINS 4 PARTIALLY REVETTED POL TANKS ON THE SIDE OF A HILL.

ESTIMATED CAPACITY: TANK 48 MT

MAP REFERENCES: AMS SERIES L7014, SHEET 6451 II, IST ED, 1965 (U)

AMS SERIES JOG(G) 1501, SHEFT NF 48-12, 1ST ED, JUN 65 (U)

PHOTO REFERENCE: 25X1D



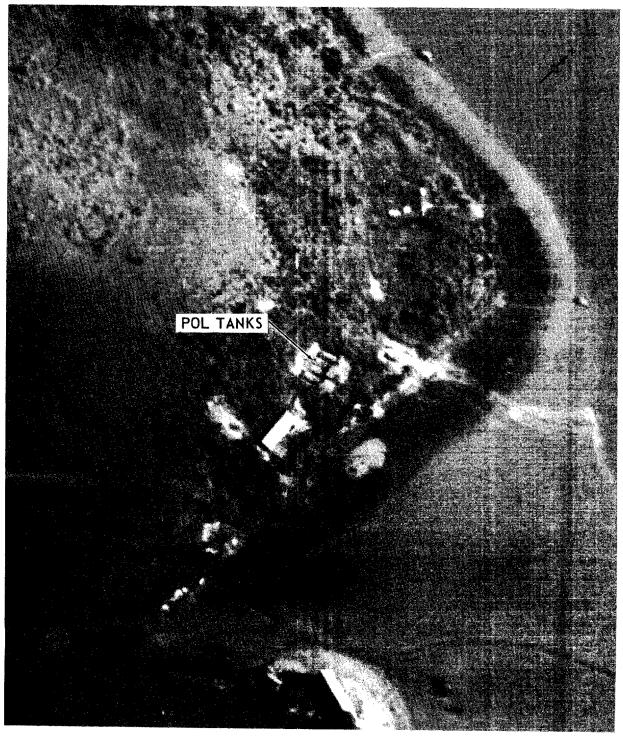
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R-218/66

YJ471281 UTM COORDINATES JAUNE ISLAND POL STORAGE

2102N 10722E

GEOGRAPHIC COORDINATES



# 25X1 (Approved For Release 2063/05/15: CIA-RDP78B04560A00550)010029-7

R-218/66

and the

0616- WJ806278 2101N 10545E
BE NUMBER UTM COORDINATES GEOGRAPHIC COORDINATES

NAME: CO NHUE HOANG POL STORAGE

LOCATION: 0.8 NM WSW OF CO NHUE HOANG, ON THE WEST BANK OF A CANAL, AND

4.9 NM WNW OF HA NOI

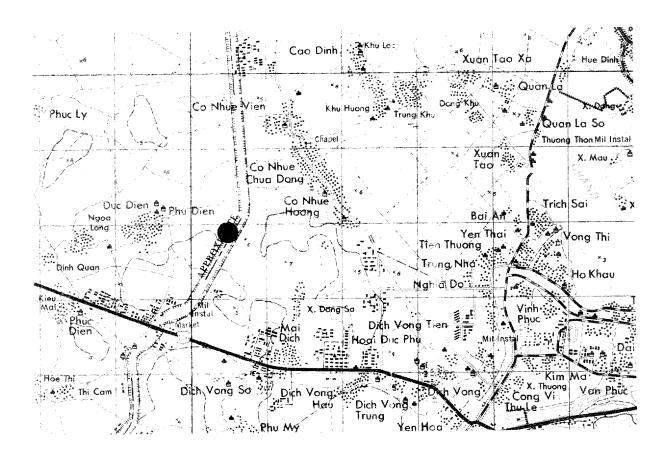
DESCRIPTION: AREA CONSISTS OF AT LEAST 9 BURIED POL TANKS. IMMEDIATELY NORTH OF THE BURIED TANKS (NOT SHOWN ON GRAPHIC) ARE 6 TANKS IN THE OPEN.

ESTIMATED CAPACITY: TANK 180 MT

MAP REFERENCES: AMS SERIES L7014, SHEET 6151 II, 3D ED, APR 63 (U)

AMS SERIES JOG (G) 1501, SHEET MF 48-11, IST ED, JUN 65 (U)

PHOTO REFERENCE: 25X1D



### APP 10 For Release 2000 No. 1 DE NIALA DP78B04560A005500010029-7

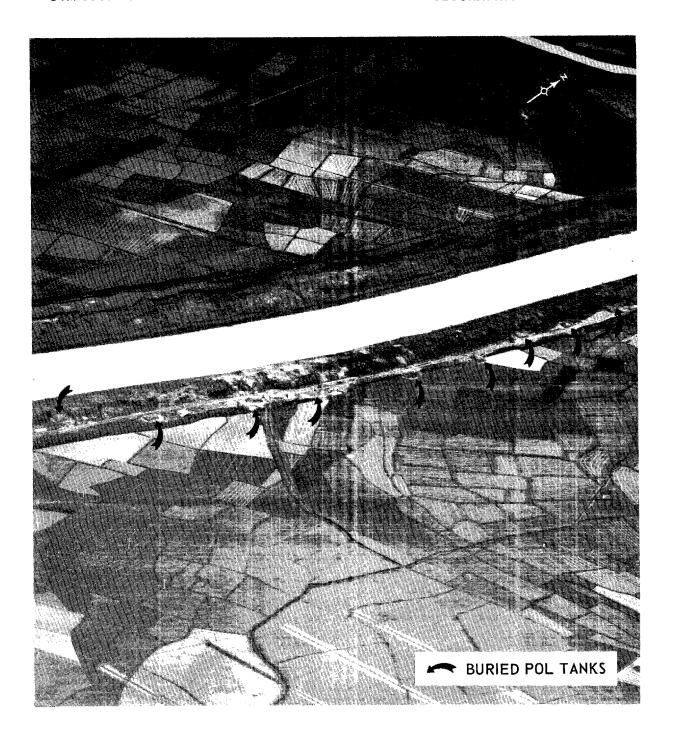
R-218/66

CO NHUE HOANG POL STORAGE

WJ806278
UTM COORDINATES

2101N 10545E

GEOGRAPHIC COORDINATES



### 25XApproved For Release 2006 ANT DENTH AP78B04560A005500010029-7

R-218/66

25X1A

WH909257

UTM COORDINATES

GEOGRAPHIC COORDINATES

NAME: QUANG SUOI PETROLEUM PRODUCTS STORAGE

LOCATION: 1.8 NM SW OF OUANG SUOI AND 0.2 NM SOUTH OF ROUTE 1A AND THE HA NOI/THANH HOA RAIL LINE.

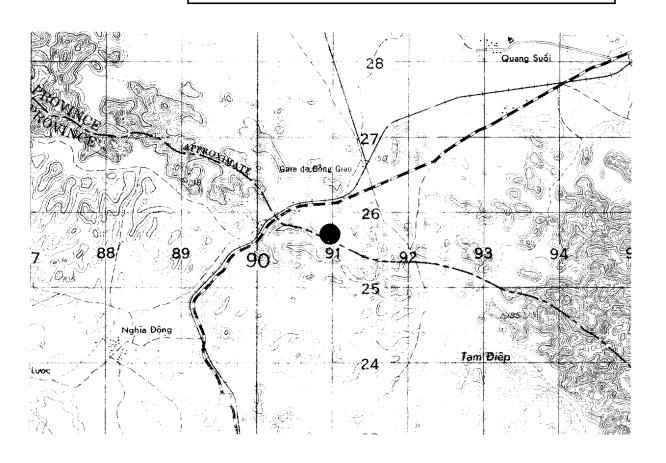
DESCRIPTION: AREA CONTAINS 8 BURIED TANKS NEAR THE BASE OF A KARST HILL. EXTENSIVE DRUM STORAGE IS OBSERVED IN THE AREA.

ESTIMATED CAPACITY: TANK 96 MT

MAP REFERENCES: AMS SERIES L701, SHEET 6171 II, 1ST ED, NOV 63 (U)

AMS SERIES JOG(G) 1501, SHEET NF 48-15, 1ST ED, JUN 65 (U)

PHOTO REFERENCE: 25X1D



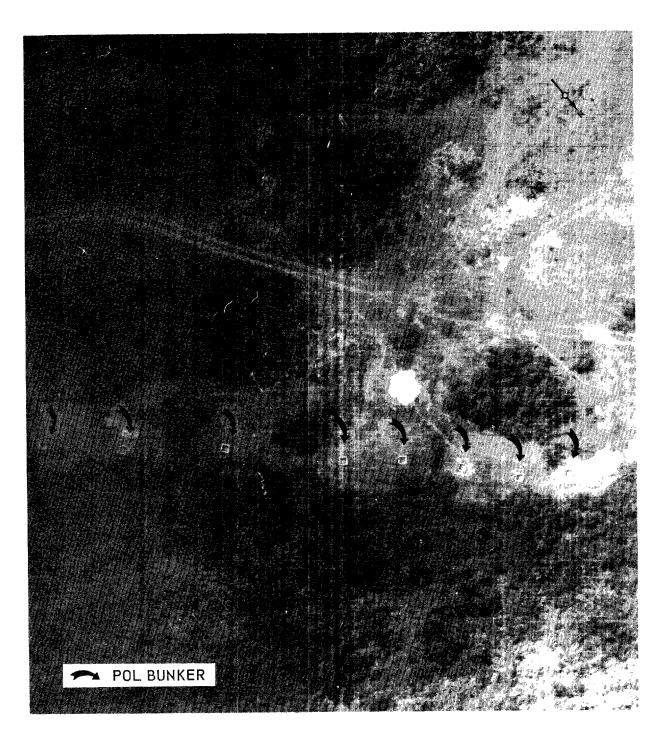
# 25X1@pproved For Release 2003/05/15 : CIA-RDP78B04560A005500010029-7

R-218/66

QUANG SUOI PETROLEUM PRODUCTS STORAGE

WH909257
UTM COORDINATES

2007N 10552E
GEOGRAPHIC COORDINATES



#### TABLE OF CONTENTS CATEGORY C

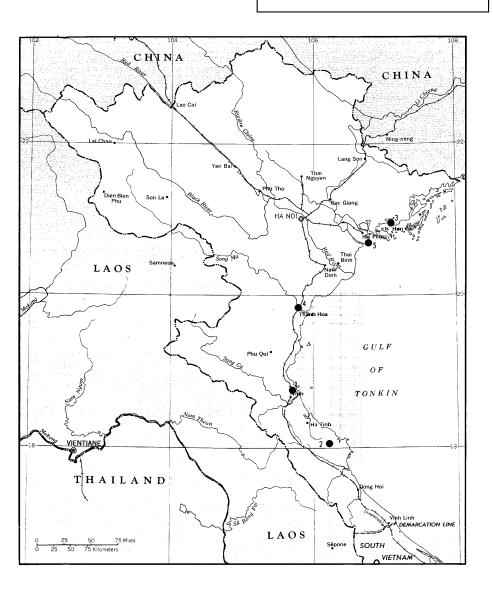
BE No.	Installation Name	Page Nos.
	Ky Tran POL Storage Area	C1, C2
	Ky Anh POL Drum Storage	C3, C4
	Hon Gai POL Drum Storage	C5, C6
	Thanh Hoa POL Distribution Area	C7, C8
	Do Son POL Drum Storage	C9, C10

Approved For Release 2003/05/15 : CIA-RDP78B04560A005500010029-7

CONFIDENTIAL

R-218/66

25X1C



#### KEY TO CATEGORY C DRUM STORAGE AREAS

- 1. Ky Tran POL Storage Area
- 2. Ky Anh POL Drum Storage
- 3. Hon Gai POL Drum Storage4. Thanh Hoa POL Distribution Area
- 5. Do Son POL Drum Storage

25X1C

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R-218/66

0617-BE NUMBER

WF705767
UTM COORDINATES

1847N 10540E GEOGRAPHIC COORDINATES

NAME: KY TRAN POL STORAGE AREA

LOCATION: 0.2 NM SOUTH OF KY TRAN, 6.9 NM NORTH OF VINH, AND 1.2 NM EAST OF

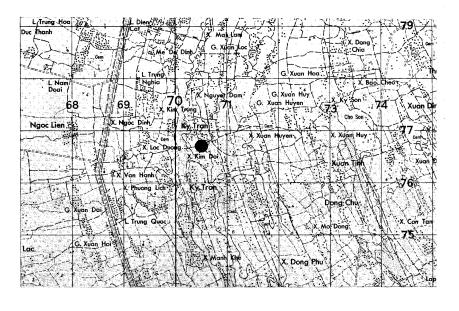
ROUTE 1A AND THE THANH HOA/VINH RAIL LINE DESCRIPTION: STORAGE AREA CONSISTS OF AT LEAST 24 PARALLEL TRENCHES IN 3 LIGHTLY WOODED AREAS ALONG BOTH SIDES OF A SECONDARY ROAD JUST SOUTH OF KY TRAN. APPROXIMATELY 1,000 POL DRUMS ARE STORED IN THESE TRENCHES. THE PART OF THE AREA SHOWN IN INSET IS AT UTM WF708768.

ESTIMATED CAPACITY: DRUM 200 MT

MAP REFERENCES: AMS SERIES L701, SHEET 6167 III, 1ST ED, DEC 60 (U) AMS SERIES JOG(G), SHEET NE 48-7, 1ST ED, DEC 65 (U)

PHOTO REFERENCE:

25X1D



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25X1C

CONFIDENTIAL

### 25X1C Approve<del>d For Release 20000515ENTIAADP78B04560A0</del>p5500010029-7

R-218/66

THANH HOA POL DISTRIBUTION AREA

WG812935 UTM COORDINATES 1950N 10546E
GEOGRAPHIC COORDINATES





# Appr2586d For Release 2003/05/15: CIA-RDP78B04560A005500010029-7

P-218/66

0616-

XE8-5015 XE866017

2043N I0647E

BE NUMBER

UTM COORDINATES

**GEOGRAPHIC COORDINATES** 

NAME: DO SON POL DRUM STORAGE

LOCATION: ON THE WEST EDGE OF DO SON

DESCRIPTION: AT LEAST 1,900 POL DRUMS IN 2 OPEN STORAGE AREAS. SOME OF

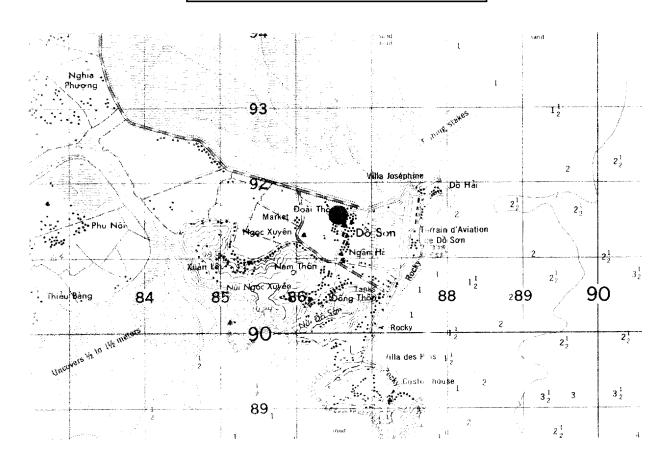
THE DRUMS HAVE A NET COVERING.

ESTIMATED CAPACITY: DRUM 380 MT

MAP REFERENCES: MIS SERIES L7014, SHEET 6350 II. 1ST ED, 1965 (U)

AMS SERIES JOG(G) 1501, SHEET N - 48-16, 1ST ED, JUN 65 (L)

PHOTO REFERENCE: 25X1D



25X1C

R-218/66

XH865915 XH866917
UTM COORDINATES

DO SON POL DRUM STORAGE

2043N 10647E
GEOGRAPHIC COORDINATES



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BE No.	Installation Name	Page Nos.
	Thuy Phuong POL Storage Tanks	D1, D2
	Ha Noi Probable POL Tank Fabrication Area 1	D3, D4
	Ha Noi Probable POL Tank Fabrication Area 2	D5, D6
	Ninh Binh (POL Tanks in Sampan)	D7, D8
	Thanh Thuy POL Tanks	D9, D10
	Lang Khe POL Storage Area Under Construction	D11, D12
	Nho Lam POL Drum Transshipment Area	D13, D14
	Phuc Yen POL Truck Dispersal Area	D15, D16
	Sac Le POL Tanks	D17, D18
	Co Trung POL Storage Site	D19, D20
	POL Barge	D21, D22
	Ha Dong POL Trucks	D23, D24

### Approve 2000 No. 10 ENILLA P78B04560A005500010029-7

R-218/66

0616-BE NUMBER

WJ809323 UTM COORDINATES 2105N 10546E GEOGRAPHIC COORDINATES

NAME: THUY PHUONG POL STORAGE TANKS

LOCATION: NE SECTION OF THUY PHUONG AND 5.3 NM NW OF HA NOI

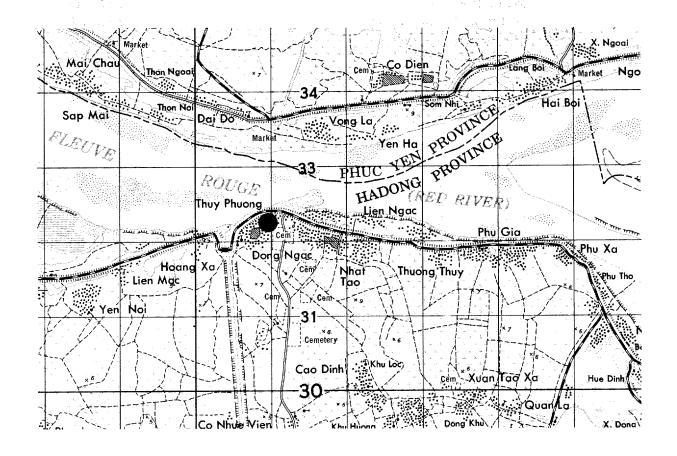
DESCRIPTION: SITE CONTAINS A TOTAL OF 65 (55 STANDARD AND 10 LARGE) TANKS IN RANDOM STORAGE. THIRTY-SIX UNASSEMBLED TANK SECTIONS ARE ALSO OBSERVED. NO PERMANENT POL STORAGE FACILITY IS APPARENT AT THIS SITE.

ESTIMATED CAPACITY: NOT APPLICABLE

MAP REFERENCES: AMS SERIES L701, SHEET 6174 II, 3D ED, APR 63 (U)

AMS SERIES JOG(G) 1501, SHEET NF 48-11, 1ST ED, JUN 65 (U)

PHOTO REFERENCE: 25X1D

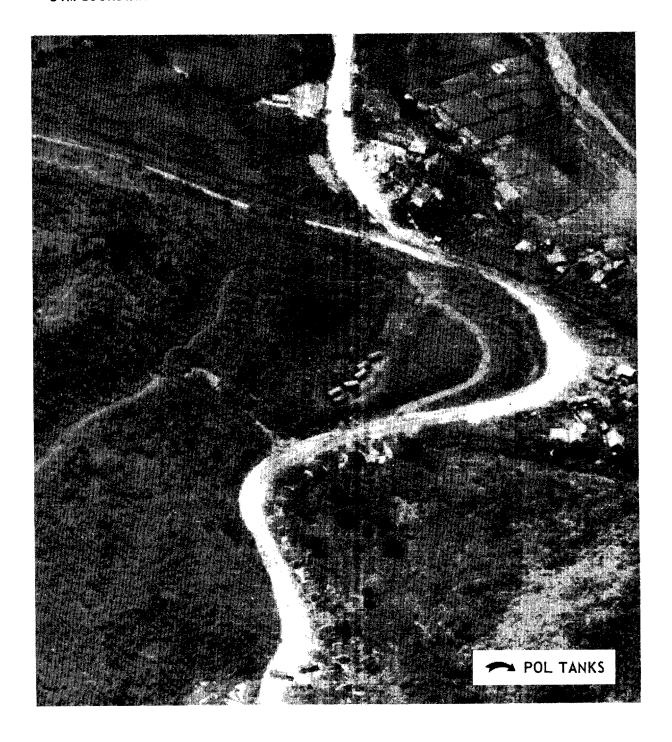


## 25xp16ved For Release 2000510ENTIA-RDP78B04560A005500010029-7

R-218/66

SAC LE POL TANKS

YJ235202 UTM COORDINATES 2058N 10709E
GEOGRAPHIC COORDINATES



### Approve: 5761 Release 200 909 5 DEN 78804560A005500010029-7

R-218/66

0616-BE NUMBER XJ301460
UTM COORDINATES

2012N 10615E GEOGRAPHIC COORDINATES

NAME: CO TRUNG POL STORAGE SITE

LOCATION: 4.9 NM SE OF BAC GIANG AND 20.9 NM NE OF HA NOI

**DESCRIPTION:** THE AREA CONTAINS 3 POL TANKS ALONGSIDE A ROAD IN AN AREA OF NEW CONSTRUCTION. ONE HUNDRED TWENTY-NINE POL DRUMS ARE IN THE OPEN STORAGE AREA 0.2 NM NE OF TANKS.

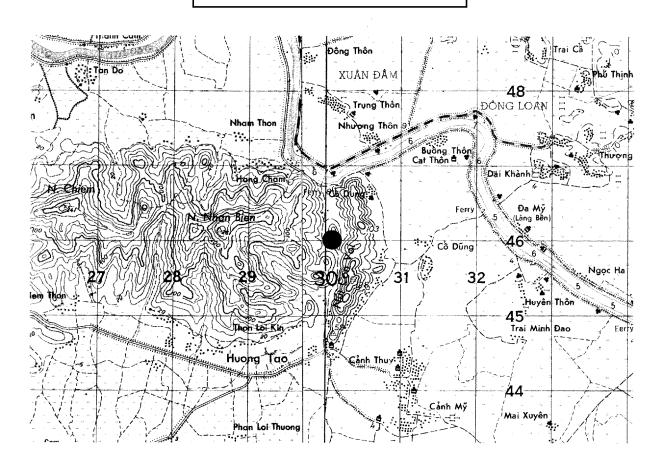
ESTIMATED CAPACITY: TANK 36 MT DRUM 26 MT

MAP REFERENCES: AMS SERIES L701, SHEET 62741, 1ST ED, MAY 64 (U)

AMS SERIES JOG(G) 1501, SHEET NF 48-15, 1ST ED, JUN 65 (U)

PHOTO REFERENCE:

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Approved For Release 200905719 ENT App78B04560A005500010029-7

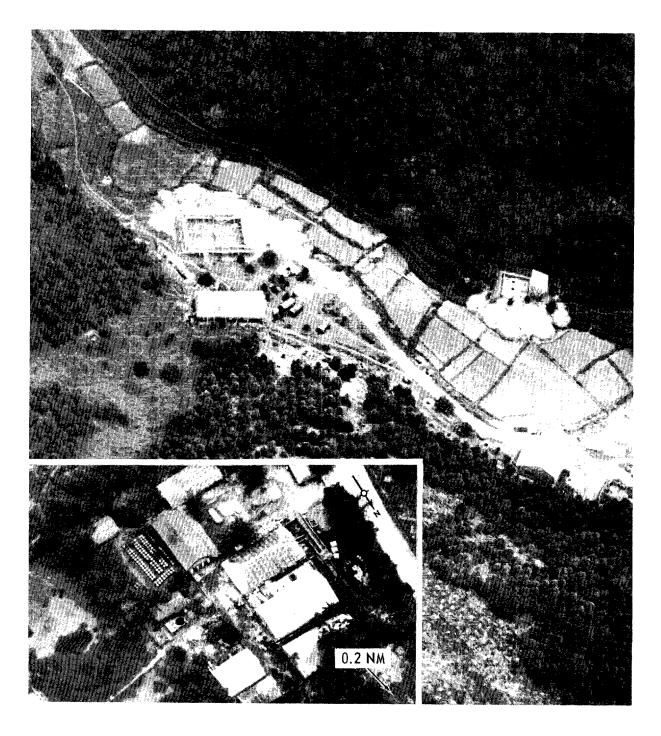
R-218/66

CO TRUNG POL STORAGE SITE

XJ301460
UTM COORDINATES

2021N 10615E

**GEOGRAPHIC COORDINATES** 



### App25761 For Release 2063/03/19:ENA-RDP78B04560A005500010029-7

R-218/66

0616-BE NUMBER XJ065817 UTM COORDINATES 2051N 10644E GEOGRAPHIC COORDINATES

NAME: POL BARGE

LOCATION: 3 NM EAST OF HAI PHONG IN A SLOUGH OFF THE CUA CAM

DESCRIPTION: A POL BARGE OF THE TYPE USED TO OFFLOAD POL FROM TANKERS IS

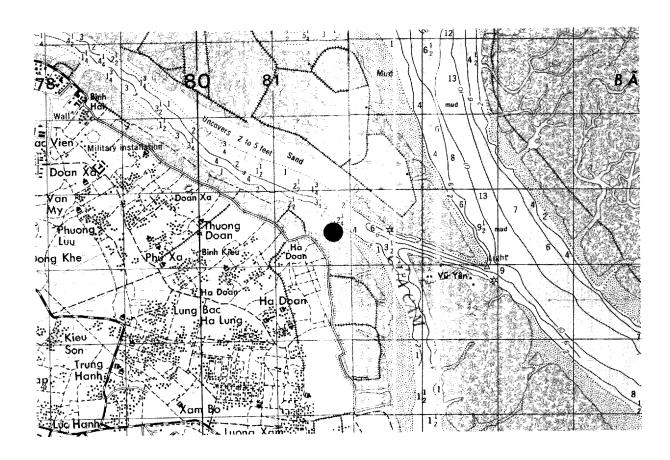
AT ANCHOR IN THE HAI PHONG AREA.

ESTIMATED CAPACITY: NOT APPLICABLE

MAP REFERENCES: AMS SERIES L7014, SHEET 6350 IV, 1965 (U)

AMS SERIES JOG(G) 1501, SHEET NF 48-16, 1ST ED, JUN 65 (U)

PHOTO REFERENCE: 25X1D



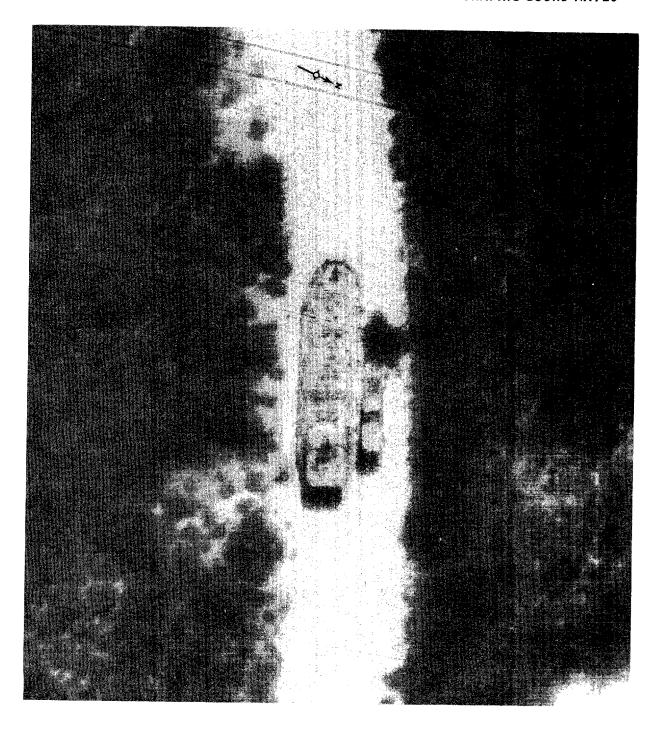
### 25 Approved For Release 2003/05/15 : CIA-RDP78B04560A0055p0010029-7

POL BARGE

XJ065817
UTM COORDINATES

2051N 10644E
GEOGRAPHIC COORDINATES

R-218/66



### Approx de For Release 206301 FIDE 178B04560A005500010029-7

R**-21**8/66

0616-BE NUMBER WJ858183
UTM COORDINATES

2057N 10549E
GEOGRAPHIC COORDINATES

NAME: HA DONG POL TRUCKS

LOCATION: 2.4 NM EAST OF HA DONG, 4.1 NM SW OF HA NOI, AND 0.6 NM EAST OF

HA NOI PETROLEUM PRODUCTS STORAGE (AREA 1)

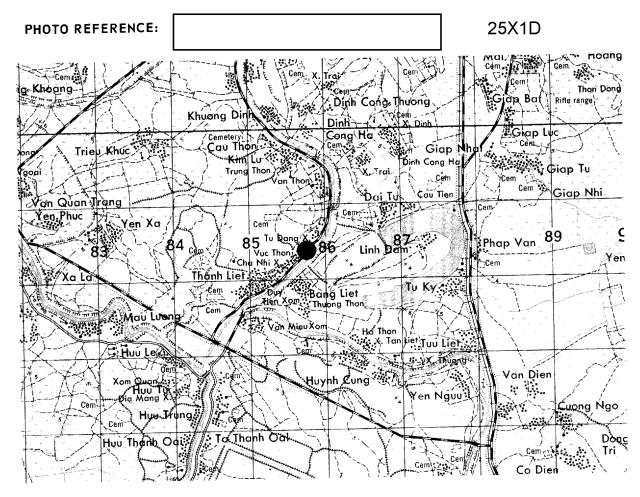
DESCRIPTION: AT LEAST 9 POL TRUCKS OF THE TYPE USED TO TRANSFER POL FROM

MAIN STORAGE TANKS TO DISPERSED STORAGE AREAS ARE OBSERVED.

ESTIMATED CAPACITY: NOT APPLICABLE

MAP REFERENCES: AMS SERIES L701, SHEET 6173 I, 3D ED, MAR 61 (U)

AMS SERIES JOG(G) 1501, SHEET NF 48-15, 1ST ED, JUN 65 (U)



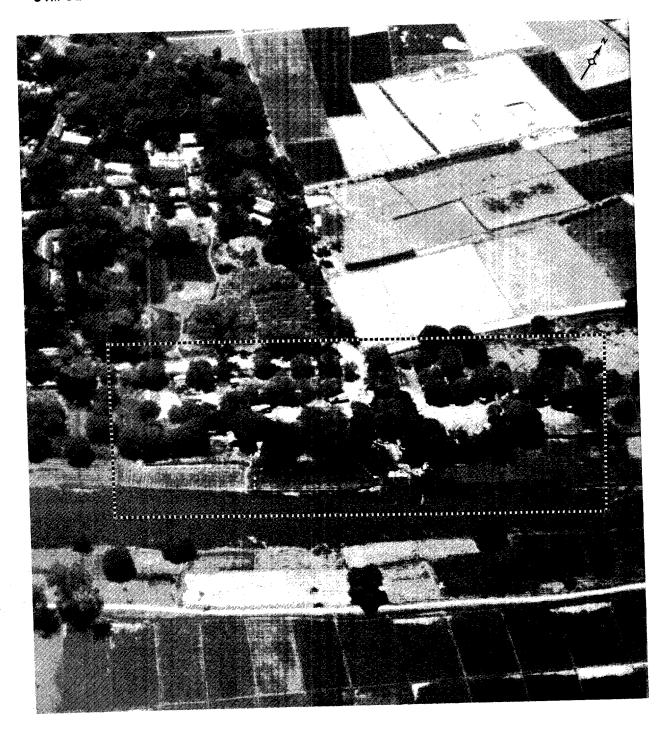
#### 25X1C Approved For Release 2001M05/10E NGI ARDP78B04560A005500010029-7

R-218/66

HA DONG POL TRUCKS

WJ858183
UTM CQORDINATES

2057N 10549E
GEOGRAPHIC COORDINATES



### TABLE OF CONTENTS CATEGORY A

### 25X1A

Installation Name	Page No.
Viet Tri Petroleum Products Storage (JCS-51.14)	X-A1
Phuc Yen Airfield POL Storage Area	X-A3
Phuc Yen Petroleum Products Storage NNE UG (JCS-51.1)	X-A5
Ha Noi Petroleum Products Storage Thanh Am (JCS-49)	X-A7
Nguyen Khe Petroleum Products Storage (JCS-51.0)	X-A9
Bac Giang Petroleum Products Storage (JCS-51.11)	X-A11
Nam Dinh Petroleum Products Storage (JCS-51.12)	X-A13
Hai Phong Petroleum Products Storage (JCS-48)	X-A15
Duong Nham Petroleum Products Storage (JCS-51.17)	X-A17
Do Son Petroleum Storage (JCS-51.13)	X-A19
Phu Van POL Storage (JCS-42)	X-A21
Vinh Petroleum Products Storage (JCS-50)	X-A23
Phu Qui Petroleum Products Storage (JCS-51.16)	X-A25
Ha Noi/Gia Lam Airfield POL Storage Area	X-A27

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VIET TRI PETROLEUM PRODUCTS STORAGE

JCS-51.14

25X1A

2117N 10526E

GEOGRAPHIC COORDINATES

### PRE-STRIKE TARGET DESCRIPTION

THIS FACILITY IS IMMEDIATELY SOUTH OF VIET TRI, AT THE CONFLUENCE OF THE RED AND CLAIRE RIVERS, AND 28 NM NW OF HA NOI. PRIOR TO STRIKE THIS FACILITY CONTAINED 3 ABOVEGROUND, MEDIUM, CYLINDRICAL TANKS; 2 UNDERGROUND TANKS; AND 4 HORIZONTAL SERVICE TANKS. THE AREA IS SERVED BY ROAD AND RAIL AND MAY HAVE A SMALL BARGE LANDING NEARBY. WITH A CAPACITY OF 1,570 MT IN TANKS AND 160 MT IN DRUMS, EXCLUSIVE OF UNDERGROUND TANKS, THIS DEPOT IS A KEY TRANSSHIPMENT POINT FOR POL SUPPLY MOVEMENTS TO THE NW REGIONS.

SIXTEEN SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 15 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. IDENTIFIED AAA ACTIVITY IN THE VIET TRI AREA INCLUDES 26 ACTIVE SITES CONSISTING OF 124 OCCUPIED 57MM/85MM REVETMENTS AND 50 OCCUPIED 37MM REVETMENTS. IN ADDITION, THERE ARE 7 INACTIVE SITES IN THE AREA. MODERATE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

DAMAGE OBJECTIVE IS DESTRUCTION OF STORED POL. DAMAGE CRITERION IS RUPTURE OF STORAGE TANKS AND DISTORTION OF EXPOSED PIPING AND EQUIPMENT. FIRING OF SPILLED CONTENTS WILL ENHANCE DISABILITY. LOSS OF THE FACILITY AND STOCKS ON HAND WOULD DISRUPT THE FLOW OF POL TO THE NW REGIONS AND REMOVE A SIGNIFICANT TRANSSHIPMENT POINT BETWEEN THESE AREAS AND THE SOURCE OF SUPPLY AT HA NOI.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE A PERIOD OF AT LEAST SEVERAL MONTHS. NORTH VIETNAM IS NOT KNOWN TO BE MANUFACTURING TANK COMPONENTS, APPROPRIATE STEEL TUBING, PIPING, PUMPS, OR OTHER ITEMS BASIC TO THE CONSTRUCTION OR MAINTENANCE OF POL STORAGE FACILITIES. THE EXISTING RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY. ALTHOUGH PREFABRICATED TANKS OF SOVIET DESIGN CAN BE INSTALLED AT A PREPARED SITE IN ABOUT A WEEK, IT APPEARS UNLIKELY THAT EITHER THE SOVIETS OR THE COMMUNIST CHINESE COULD PLACE ALL THE NECESSARY ELEMENTS TOGETHER IN LESS THAN 4 WEEKS.

#### BOMB DAMAGE ASSESSMENT

25X1

RESULTS OF THIS STRIKE WERE 2 SERVICE TANKS DESTROYED AND 2 SEVERELY DAMAGED. THE PUMPHOUSE AND ALL PIPELINES LEADING TO IT WERE SEVERELY DAMAGED. THE REMAINING POL TANKS WERE NOT DAMAGED. THERE ARE ABOUT 29 IMPACTS IN AND AROUND THE TARGET AREA.

PREPARED BY DEFENSE INTELLIGENCE AGENCY

25X1C

X-A1
Approved For Release 2003/65/152:F01A-RDP78B04560A005500010029-7

# Approved For Release 2003/05/15 : CIA-RDP78B04560A00\$500010029-7

R-218/66

HAI PHONG PETROLEUM PRODUCTS STORAGE JCS-48 25X1A

XJ730087 UTM COORDINATES

25X1

25X1

2052N 10639E GEOGRAPHIC COORDINATES

### PRE-STRIKE TARGET DESCRIPTION

THIS FENCED FACILITY IS ABOUT 2 NM WNW OF HAI PHONG. PRIOR TO STRIKE OF 29 JUNE 1966, IT CONTAINED 30 ABOVEGROUND, CYLINDRICAL, STEEL STOR-IN DIAMETER, AND 5 HORIZONTAL TANKS AGE TANKS RANGING FROM FEET IN DIAMETER. EXTENSIVE SUPPORT FACILITIES INCLUDE ABOUT 15 - 17 WAREHOUSE-TYPE BUILDINGS RANGING FROM 110' X 70' TO 860' X 150'. NUMEROUS SMALLER SUPPORT BUILDINGS AND OPEN STORAGE AREAS ARE DISPERSED THROUGHOUT THE FACILITY. TRANSPORTATION SERVICES CONSIST OF 3 OIL PIERS, 3 BRANCH RAIL LINES, AND A WELL-DEVELOPED ROAD SYSTEM.

THIS DEPOT, WITH A TOTAL STORAGE CAPACITY OF 48,348 MT, IS OF CRITICAL IMPORTANCE TO THE MILITARY FORCES, INDUSTRIAL BASE, TRANSPORTATION SYS-TEMS, AND GENERAL CIVILIAN ECONOMY OF NORTH VIETNAM. REPRESENTING AP-PROXIMATELY ONE-THIRD OF THE COUNTRY'S POL STORAGE CAPACITY, THIS DEPOT RECEIVES AND DISTRIBUTES ABOUT 90 PERCENT OF THE PETROLEUM PRODUCTS ENTERING THE COUNTRY. THIS IS THE ONLY FACILITY CURRENTLY CAPABLE OF OFF-LOADING LARGE, OCEAN-GOING TANKERS.

THERE ARE 19 IDENTIFIED SAM SITES WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET; AN ADDITIONAL 10 SITES ARE 18 - 30 NM DISTANT. IDENTIFIED AAA ACTIVITY WITHIN 3 NM OF THE TARGET INCLUDES 13 ACTIVE SITES CONSIST-ING OF 8 OCCUPIED 100MM REVETMENTS, 60 OCCUPIED 57MM/85MM REVETMENTS, AND 11 OCCUPIED 37MM REVETMENTS. IN ADDITION, THERE ARE 7 INACTIVE AAA SITES IN THE IMMEDIATE AREA. MODERATE TO INTENSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

DAMAGE OBJECTIVE IS DESTRUCTION OF STORED POL. DAMAGE CRITERION IS RUP-TURE OF STORAGE TANKS AND DISTORTION OF EXPOSED PIPING AND EQUIPMENT. FIRING OF SPILLED CONTENTS WILL ENHANCE DISABILITY. LOSS OF THIS FACIL-ITY AND THE STOCKS ON HAND WOULD INDUCE CRITICAL SHORTAGES OF FUELS THROUGHOUT ALL CONSUMING SECTORS OF THE NORTH VIETNAMESE ECONOMY, THE MILITARY FORCES, AND THE VIET CONG AND PATHET LAO. LOSS OF TANKAGE AND MARINE TERMINAL FACILITIES WOULD FORCE RELIANCE ON THOSE LIMITED STOCKS ON HAND, AND ON THE SEVERELY REDUCED FLOW OF IMPORTS THAT COULD BE BROUGHT IN BY RAIL AND SMALL COASTAL VESSEL.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE A PERIOD OF SEVERAL MONTHS OR POSSIBLY MUCH LONGER. NORTH VIETNAM IS NOT KNOWN TO BE MANUFACTURING TANK COMPONENTS, APPROPRIATE STEEL TUBING, PUMPS, OR OTHER ITEMS BASIC TO THE CONSTRUCTION OR MAINTENANCE OF POL STOR-AGE FACILITIES. THE EXISTING RELIANCE ON IMPORTED MATERIALS AND SKILLS IS

> PREPARED BY DEFENSE INTELLIGENCE AGENCY X-A15

25X1C

R-218/66

EXPECTED TO CONTINUE INDEFINITELY. ALTHOUGH PREFABRICATED TANKS OF SOVIET DESIGN CAN BE INSTALLED AT A PREPARED SITE IN ABOUT A WEEK, IT APPEARS UNLIKELY THAT EITHER THE SOVIETS OR THE COMMUNIST CHINESE COULD PLACE ALL NECESSARY ELEMENTS TOGETHER IN LESS THAN 4 WEEKS, EVEN UNDER EMERGENCY CONDITIONS.

#### BOMB DAMAGE ASSESSMENT

THE THIRD STRIKE ON THE TARGET OCCURRED ON 3 AUGUST 1966 BY 16 USN AIR-CRAFT, SUPPORTED BY 22 OTHER USN AIRCRAFT. ORDNANCE EXPENDED WAS 59/MK 81, 54/MK 82, 30/MK 83, 4/64-2.75" ROCKETS, AND 3/AGM 45.

NINETEEN HORIZONTAL PARTLY UNDERGROUND TANKS, NOT PREVIOUSLY NOTED, WERE REVEALED ON THE PHOTOGRAPHY. OF THESE, 15 ARE 25-MT TYPE AND 4 ARE 12-MT TYPE. THESE TANKS WERE APPARENTLY UNDAMAGED.

OF THE 35 POL STORAGE TANKS, 27 WERE DESTROYED AND 8 DAMAGED (6 SEVERE, 2 SUPERFICIAL). APPROXIMATELY 90 PERCENT OF THE ORIGINAL STORAGE CAPACITY WAS DESTROYED. ONE PUMPHOUSE AND 8 SUPPORT BUILDINGS WERE DESTROYED. SEVENTEEN ADDITIONAL BUILDINGS WERE DAMAGED (5 SEVERE, 1 MODERATE, 11 SUPERFICIAL). THE REMAINING PUMPHOUSE WAS SUPERFICIALLY DAMAGED.

25X1

## 25X1Approved For Release 2003/05/15: CIA-RDP78B04560A005500010029-7

R-218/66

## DUONG NHAM PETROLEUM PRODUCTS STORAGE JCS-51.17

XJ572260	25X1A	. 2101N 10630E
UTM COORDINATES		GEOGRAPHIC COORDINATES

#### PRE-STRIKE TARGET DESCRIPTION

THIS FACILITY IS 0.4 NM NORTH OF DUONG NHAM AND 14.5 NM NW OF HAI PHONG. IT IS SERVED BY ROAD AND IS PROBABLY CAPABLE OF RECEIPT AND/OR DELIVERY AT THE NEARBY RIVER. PRE-STRIKE PHOTOGRAPHY REVEALS 4 VERTICAL ABOVE-GROUND POL STORAGE TANKS AND 3 PROBABLE TANK BASES AT THE BASE OF A HILL.

THE FACILITY HAD A PRE-STRIKE ESTIMATED CAPACITY OF 4,920 MT. THE LOCATION OF THE TARGET AND THE HARDNESS AND CONFIGURATION OF THE SITE INDICATE THAT IT IS IMPORTANT TO ACTIVITIES IN THE AREA AND THAT IT WILL PROBABLY SERVE AS A RESERVE SHOULD THE PRINCIPAL FACILITIES AT HAI PHONG BE DAMAGED.

TWENTY SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 21 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. NO AAA ACTIVITY IS IDENTIFIED IN THE IMMEDIATE AREA; HOW-EVER, 1 ACTIVE SITE OF 8 OCCUPIED 37MM REVETMENTS IS IN THE LO DUNG AREA. SPARSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE APPROXIMATELY 2 - 3 WEEKS WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL HORIZONTAL TANKS, BUT MUST IMPORT THE VARIOUS COMPONENT PARTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

#### BOMB DAMAGE ASSESSMENT

OF THE 4 TANKS IN THE AREA, 2 WERE DESTROYED, 1 MODERATELY DAMAGED, AND 1 UNDAMAGED. FIFTY PERCENT OF THE STORAGE CAPACITY HAS BEEN DESTROYED, LEAVING A CAPACITY OF 2,460 MT.

25X1

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25X1C			R-218/66
			NIO

XOM DUONG QUAN PETROLEUM PRODUCTS STORAGE UNDERGROUND

WE895768 UTM COORDINATES	25X1A	1752N 10550E
		GEOGRAPHIC COORDINATES

### PRE-STRIKE TARGET DESCRIPTION

THIS STORAGE SITE IS NORTH OF XOM DUONG QUAN, ALONG ROUTE 101. IT CONSISTS OF 1 AREA WITH 2 BURIED TANKS AND 3 ADDITIONAL AREAS WITH A TOTAL OF ABOUT 96 DRUMS ENTRENCHED IN BOMB CRATERS. ESTIMATED CAPACITY IS 24 MT IN TANKS AND 19 MT IN DRUMS.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVES AND/OR LOCAL CONSUMPTION.

NO SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET; HOWEVER, 2 SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. IDENTIFIED AAA ACTIVITY IN THE NEARBY XOM THANH AREA INCLUDES 4 ACTIVE SITES CONSISTING OF 16 OCCUPIED 37MM REVETMENTS. IN ADDITION, THERE ARE 6 INACTIVE SITES IN THE AREA. SPARSE TO MODERATE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE APPROXIMATELY 2 - 3 WEEKS WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL HORIZONTAL TANKS, BUT MUST IMPORT THE VARIOUS COMPONENT PARTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

PREPARED BY DEFENSE INTELLIGENCE AGENCY

25X1C X-B61 Approved For Release 2003/05/15 ÷ GIA-RDP78B04560A005500010029-7

### 25 X P D oved For Release 2003/05/15 CTA-RDP78B04580A005500010029-7

R-218/66

THO TRANG PETROLEUM PRODUCTS STORAGE

WG661179 UTM COORDINATES	25X1A	1909N 10537E GEOGRAPHIC COORDINATES

#### PRE-STRIKE TARGET DESCRIPTION

THIS FACILITY IS 0.5 NM EAST OF THO TRANG, ADJACENT TO THE THANH HOA - VINH RAIL LINE. THE AREA CONTAINS 6 BURIED TANKS POSSIBLY CONNECTED TO THE RAIL YARD AREA BY ABOVEGROUND PIPES; 4 BURIED TANKS ARE JUST WEST OF THE RAIL YARD. APPROXIMATELY 100 DRUMS ARE ALSO IN THE AREA. ESTI-MATED CAPACITY IS 120 MT IN TANKS AND 20 MT IN DRUMS.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVES AND/OR LOCAL CONSUMPTION.

THREE SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 3 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. IDENTIFIED AAA ACTIVITY IN THE THO TRANG - MY HOA AREA INCLUDES 1 ACTIVE SITE CONSISTING OF 4 OCCUPIED 37MM REVETMENTS. IN ADDITION, THERE ARE 2 INACTIVE SITES IN THE AREA. SPARSE TO MODERATE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE APPROXIMATELY 2 - 3 WEEKS WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL HORIZONTAL TANKS, BUT MUST IMPORT THE VARIOUS COMPONENT PARTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

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		R-218/66

NINH GIANG PETROLEUM PRODUCTS STORAGE

XH592964 UTM COORDINATES	25X1A	2045N 10631E GEOGRAPHIC COORDINATES

#### PRE-STRIKE TARGET DESCRIPTION

THIS FACILITY IS 7.3 NM ENE OF NINH GIANG AND 10.8 NM SW OF HAI PHONG. THE ROAD-SERVED AREA CONTAINS AT LEAST 13 PARTLY UNDERGROUND TANKS AND 14 UNDERGROUND TANKS ALONG A CANALIZED STREAM. ESTIMATED CAPACITY IS 324 MT.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVES AND/OR LOCAL CONSUMPTION.

SIXTEEN SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 13 ADDITIONAL SITES HAVE BEEN IDENTIFIED 18 - 30 NM DISTANT. NO AAA ACTIVITY HAS BEEN IDENTIFIED IN THE NINH GIANG AREA. SPARSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE APPROXIMATELY 2 - 3 WEEKS WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL HORIZONTAL TANKS, BUT MUST IMPORT THE VARIOUS COMPONENT PARTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

PREPARED BY DEFENSE INTELLIGENCE AGENCY X-B81

25X1Approved For Release 2003/05/15 : CIA-RDP78B04560A005500010029-7

VIET YEN PETROLEUM PRODUCTS STORAGE

XH284845 UTM COORDINATES 2039N 10614E
GEOGRAPHIC COORDINATES

#### PRE-STRIKE TARGET DESCRIPTION

THIS FACILITY IS 0.7 NM WEST OF VIET YEN AND 31 NM SE OF HA NOI, ON THE NORTH BANK OF CANAL DES BAMBOUS. IT IS WATER SERVED AND CONTAINS 120 BURIED POL TANKS IN 10 BUNKERS. ESTIMATED CAPACITY IS 1,440 MT.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVES AND/OR LOCAL CONSUMPTION.

SEVEN SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 30 ADDITIONAL SITES HAVE BEEN IDENTIFIED 18 - 30 NM DISTANT. NO AAA ACTIVITY HAS BEEN IDENTIFIED IN THE VIET YEN AREA. SPARSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE APPROXIMATELY 2 - 3 WEEKS WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL HORIZONTAL TANKS, BUT MUST IMPORT THE VARIOUS COMPONENT PARTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

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R-218/66	KEP HA PETROLEUM PRODUCTS STORAGE	

XJ715653 **UTM COORDINATES** 

25X1C

2123N 10639E GEOGRAPHIC COORDINATES

## PRE-STRIKE TARGET DESCRIPTION

THIS ROAD-SERVED FACILITY IS 0.7 NM WEST OF KEP HA AIRFIELD. IT CONTAINS 8 BUNKERED POL TANKS WITH AN ESTIMATED CAPACITY OF 96 MT, 2 SUPPORT BUILD-INGS, AND 2 PROBABLE FUEL DISPENSING PUMPS.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVES AND/OR LOCAL CONSUMPTION.

FIVE SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 21 ADDITIONAL SITES HAVE BEEN IDENTIFIED 18 - 30 NM DIS-TANT. NO AAA ACTIVITY HAVE BEEN IDENTIFIED IN THE AREA. SPARSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE APPROXIMATELY 2 - 3 WEEKS WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL HORIZONTAL TANKS, BUT MUST IMPORT THE VARIOUS COMPONENT PARTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

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## Approved For Release 2003/05 15 PGIA-RDP78B04560A005

R-218/66

TIEN HOI PETROLEUM PRODUCTS STORAGE

XJ652038 UTM COORDINATES

2049N 10635E
GEOGRAPHIC COORDINATES

## PRE-STRIKE TARGET DESCRIPTION

THIS FACILITY IS ON THE SW BANK OF THE LACH TRAY (RIVER), 0.4 NM EAST OF TIEN HOI, AND 2 NM NW OF HAI PHONG/KIEN AN AIRFIELD. IT CONTAINS 39 BUNKERED POL TANKS ALONG THE RIVERBANK AT THE BASE OF A HILL AND 4 SUPPORT BUILDINGS. THE FACILITY IS SERVED BY THE RIVER AND AN ALL-WEATHER ROAD. ESTIMATED CAPACITY IS 468 MT.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVES AND/OR LOCAL CONSUMPTION.

NINETEEN SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 11 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. IDENTIFIED AAA ACTIVITY WITHIN 3 NM OF THE TARGET INCLUDES 7 ACTIVE AAA SITES CONSISTING OF 44 OCCUPIED 57MM/85MM REVETMENTS AND 2 OCCUPIED 37MM REVETMENTS. IN ADDITION, THERE ARE 5 INACTIVE SITES IN THE AREA. MODERATE TO INTENSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE APPROXIMATELY 2 - 3 WEEKS WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL HORIZONTAL TANKS, BUT MUST IMPORT THE VARIOUS COMPONENT PARTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

PREPARED BY DEFENSE INTELLIGENCE AGENCY
X-B87

25X1C Approved Fo	or Release 2003/05/15 : CIA-RDP	<del>78B04560A0055</del> 00010029-7
	SONG PAT PETROLEUM PRODUCTS	STORAGE R-218/66
XJ551318	25X1A	
UTM COORDINATES		2104N 10629E GEOGRAPHIC COORDINATES

# PRE-STRIKE TARGET DESCRIPTION

THIS STORAGE FACILITY IS 1.8 NM ESE OF DONG MAI. IT CONTAINS 2 ROWS OF BUNKERED POL TANKS, WITH A TOTAL OF AT LEAST 23 TANKS, AND EXCAVATIONS FOR 4 ADDITIONAL TANKS. ESTIMATED CAPACITY IS 276 MT.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVES AND/OR LOCAL DISTRIBUTION.

TWENTY-ONE SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 20 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. NO AAA ACTIVITY HAS BEEN IDENTIFIED IN THE DONG MAI AREA. SPARSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE APPROXIMATELY 2 - 3 WEEKS WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL HORIZONTAL TANKS, BUT MUST IMPORT THE VARIOUS COMPONENT PARTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE

25X1C	SECRET	
Approved	For Release 2003/05/15 : CIA-RDP78B04560A005	00010029-7
		R-218/66
	YOM LANG POL STOPAGE	

XE521486 UTM COORDINATES 1737N 10626E
GEOGRAPHIC COORDINATES

#### PRE-STRIKE TARGET DESCRIPTION

THIS STORAGE AREA IS 1.2 NM WEST OF XOM LANG AND 14.1 NM NW OF DONG HOI, JUST SOUTH OF ROUTE 107. IT CONTAINS AT LEAST 27 POL TANKS IN 9 BUNKERS. ESTIMATED CAPACITY IS 312 MT.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVES AND/OR LOCAL DISTRIBUTION.

NO SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET. THERE IS NO IDENTIFIED AAA ACTIVITY IN THE XOM LANG - PHU LE AREA; HOWEVER, 1 UNOCCUPIED 37MM SITE IS SITUATED IN PHU LE. SPARSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THE TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE APPROXIMATELY 2 - 3 WEEKS WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL HORIZONTAL TANKS, BUT MUST IMPORT THE VARIOUS COMPONENT PARTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

25XApproved	For Release 2003/05/45 PATRDP78B04560A005	500010029-7
		R-218/66
	VAN HOA POL STORAGE	,

YJ669467 YJ667464 UTM COORDINATES

2112N 10734E GEOGRAPHIC COORDINATES

## PRE-STRIKE TARGET DESCRIPTION

THIS STORAGE FACILITY CONSISTS OF 2 SEPARATE AREAS: 1 IS IMMEDIATELY WEST OF VAN HOA AND THE OTHER IS ON THE SW TIP OF AN UNNAMED ISLAND 0.2 NM NORTH OF THE PORT. EACH AREA CONTAINS 6 POL TANKS WITH A TOTAL CAPACITY OF 144 MT.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVES AND/OR LOCAL DISTRIBUTION.

NO SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET. IDENTIFIED AAA ACTIVITY IN THE VAN HOA AREA INCLUDES 2 ACTIVE SITES CONSISTING OF 6 OCCUPIED 37MM REVETMENTS. IN ADDITION, THERE ARE 3 INACTIVE SITES IN THE AREA. SPARSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS SITE TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE APPROXIMATELY 2 - 3 WEEKS WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL HORIZONTAL TANKS, BUT MUST IMPORT THE VARIOUS COMPONENT PARTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

PREPARED BY DEFENSE INTELLIGENCE AGENCY 

# 25XAPDroved For Release 2003/05/FS:RETA-RDP78B04560A005500010029-7 R=218/66 PHU LO PETROLEUM PRODUCTS STORAGE NNE UNDERGROUND WJ321688 UTM COORDINATES 25X1A 2124N 10518E GEOGRAPHIC COORDINATES

## PRE-STRIKE TARGET DESCRIPTION

THIS STORAGE SITE IS 0.2 NM NE OF ROUTE 2 AND 0.6 NM NNE OF PHU LO. IT CONSISTS OF APPROXIMATELY 19 BUNKERED POL TANKS AND 8 EXCAVATIONS. ESTIMATED CAPACITY IS 228 MT.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVES AND/OR LOCAL DISTRIBUTION.

ELEVEN SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 10 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. IDENTIFIED AAA ACTIVITY IN THE THACH SON AREA INCLUDES 4 ACTIVE SITES CONSISTING OF 16 OCCUPIED 57MM/85MM REVETMENTS AND 8 OCCUPIED 37MM REVETMENTS. IN ADDITION, THERE ARE 3 INACTIVE SITES IN THE AREA. SPARSE TO MODERATE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS SITE TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE APPROXIMATELY 2 - 3 WEEKS WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL HORIZONTAL TANKS, BUT MUST IMPORT THE VARIOUS COMPONENT PARTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

PREPARED BY DEFENSE INTELLIGENCE AGENCY

25X1C

NO

25X1C Approv <u>ed For Release 2003/05#75p F7A-RDP78B04560</u>	<u>A005</u> 500010029-7
	R-218/66
JAUNE ISLAND POL STORAGE	N=210/00

YJ471281 UTM COORDINATES 2102N 10722E
GEOGRAPHIC COORDINATES

## PRE-STRIKE TARGET DESCRIPTION

THIS STORAGE FACILITY IS ON THE NE SIDE OF JAUNE ISLAND, 0.9 NM NNE OF CAM PHA PORT. IT CONTAINS 4 PARTIALLY REVETTED POL TANKS ON THE SIDE OF A HILL. ESTIMATED CAPACITY IS 48 MT.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVES AND/OR LOCAL DISTRIBUTION.

NO SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET; HOWEVER, 2 SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. NO AAA ACTIVITY HAS BEEN IDENTIFIED IN THE JAUNE ISLAND AREA. SPARSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THE TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE APPROXIMATELY 2 - 3 WEEKS WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL HORIZONTAL TANKS, BUT MUST IMPORT THE VARIOUS COMPONENT PARTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

PREPARED BY DEFENSE INTELLIGENCE AGENCY
25X1C Approved For Release 2003/05/15/15/15/CIA-RDP78B04560A005500010029-7

25X1C Approved For Release 2003/05/15 : CIA-RDP78B04560A005500010029-766

CO NHUE HOANG POL STORAGE

WJ806278 UTM COORDINATES

2101N 10545E GEOGRAPHIC COORDINATES

# PRE-STRIKE TARGET DESCRIPTION

THIS STORAGE AREA IS ON THE WEST BANK OF A CANAL, 0.8 NM WSW OF CO NHUE HOANG AND 4.9 NM WNW OF HA NOI. THE ROAD-SERVED FACILITY CONTAINS AT LEAST 9 BURIED POL TANKS AND 6 TANKS IN OPEN STORAGE WITH AN ESTIMATED CAPACITY OF 180 MT.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVES AND/OR LOCAL DISTRIBUTION.

TWENTY SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 18 ADDITIONAL SITES ARE WITHIN AN 18 - 30 NM RADIUS. IDENTIFIED AAA ACTIVITY IN THE CO NHUE HOANG AREA INCLUDES 21 ACTIVE SITES CONSISTING OF 93 OCCUPIED 57MM/85MM REVETMENTS AND 30 OCCUPIED 37MM REVET-MENTS. INTENSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE APPROXIMATELY 2 - 3 WEEKS WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL HORIZONTAL TANKS, BUT MUST IMPORT THE VARIOUS COMPONENT PARTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

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Approved For Release 2003/05F/5 RETA-RDP78B04560A005500010029-7
R-218/66

QUANG SUOI PETROLEUM PRODUCTS STORAGE

WH909257 UTM COORDINATES	25X1A	2007N 10552E GEOGRAPHIC COORDINATES

#### PRE-STRIKE TARGET DESCRIPTION

THIS STORAGE FACILITY IS 1.8 NM SW OF QUANG SUOI AND 0.2 NM SOUTH OF ROUTE 1A. THE AREA CONTAINS 8 BURIED POL TANKS NEAR THE BASE OF A HILL, AND AT LEAST 250 DRUMS. ESTIMATED CAPACITY IS 96 MT IN TANKS AND 52 MT IN DRUMS.

THIS AREA IS PART OF THE DISPERSED STORAGE SYSTEM UTILIZED FOR STRATEGIC RESERVES AND/OR LOCAL DISTRIBUTION.

THIRTEEN SAM SITES HAVE BEEN IDENTIFIED WITHIN SA-2 MISSILE RANGE (17.5 NM) OF THE TARGET, AND 9 ADDITIONAL SITES HAVE BEEN IDENTIFIED WITHIN AN 18 - 30 NM RADIUS. NO AAA ACTIVITY HAS BEEN IDENTIFIED IN THE QUANG SUOI AREA; HOWEVER, THERE ARE 6 UNOCCUPIED SITES IN THE AREA. SPARSE HMG AND SMALL ARMS FIRE IS ANTICIPATED AGAINST AIRCRAFT.

RESTORATION OF THIS TARGET TO FULL, PRE-STRIKE CAPABILITY WOULD REQUIRE APPROXIMATELY 2 - 3 WEEKS WITH MATERIALS AT THE SITE. NORTH VIETNAM IS PRESENTLY FABRICATING SMALL HORIZONTAL TANKS, BUT MUST IMPORT THE VARIOUS COMPONENT PARTS. RELIANCE ON IMPORTED MATERIALS IS EXPECTED TO CONTINUE INDEFINITELY.

PREPARED BY DEFENSE INTELLIGENCE AGENCY

X-B101
Approved For Release 2003/05/15-2014-RDP78B04560A005500010029-7

## ANNEX II

	Capac	ity
Installation Name	MT Water	MT POL
Viet Tri Petroleum Products Storage	1,730	1,453
Phuc Yen Airfield POL Storage Area	4,200	3,530
Phuc Yen Petroleum Products Storage NNE UG	11,800	9,910
Ha Noi Petroleum Products Storage Thanh Am	36,453	30,620
Nguyen Khe Petroleum Products Storage	8,925	7,500
Bac Giang Petroleum Products Storage	2,330	1,960
Nam Dinh Petroleum Products Storage	13,120	11,021
Hai Phong Petroleum Products Storage	48,348	40,612
Duong Nham Petroleum Products Storage	2 <b>,</b> 460	2,067
Do Son Petroleum Storage	3,400	2,856
Phu Van POL Storage	1,000	840
Vinh Petroleum Products Storage	14,325	12,033
Phu Qui Petroleum Products Storage	9,000	7,560
Ha Noi/Gia Lam Airfield POL Storage Area	850	714
Thai Nguyen Petroleum Products PUG South	2,359	1,981
Van Lung Petroleum Products Storage UG	352	295
Van Lung Petroleum Products Storage West UG	84	71
Hoang Mai POL Storage Area	300	252
Ha Noi Petroleum Products Thi Cam	468	393
Bai Thuong Petroleum Products Storage UG Southeast	2,040	1,714
Son La Petroleum Products Storage	384	323
Thuong Thon Petroleum Products Storage UG	456	383
Ngoc Son Petroleum Products Storage PUG	348	292
Thai Lai Petroleum Products Storage	120	101
Yen Hau Petroleum Products Storage PUG	360	302
Thanh Lang Petroleum Products Storage PUG	1,044	877
Ha Noi Petroleum Products Storage UG Thanh Liet (Area 1)	516	433
Ha Noi Petroleum Products Storage UG Thanh Liet (Area 2)	120	101
Bang So Petroleum Products Storage PUG	234	197
Son Chau Petroleum Products Storage PUG	336	282
Kep Petroleum Products Storage	2,140	1 797
Ha Noi Petroleum Products Storage Duc Noi (Area 1)	1,108	931
Ha Noi Petroleum Products Storage Duc Noi (Area 2)	451	379
Ha Noi Petroleum Products Storage Duc Noi (Area 3)	300	252
Ha Noi Petroleum Products Storage Duc Noi (Area 4)	72	60

25X1A

## ANNEX II (Continued)

## 25X1A

BE No.	Ingtall at N	Cap	acity
	Installation Name	MT Water	MT POL
	Cu Van Petroleum Products Storage	1,128	948
	Cu Van Petroleum Products Storage East UG	540	454
	Dao Quan Petroleum Products Storage East	444	373
	Dao Quan Petroleum Products Storage West	<b>3</b> 60	302
	Nam Dinh Petroleum Products Storage PUG	264	222
	Tung Tu Petroleum Products Storage UG	1,320	1,109
	Phuc Yen Airfield POL Storage Area 1	240	202
	Phuc Yen Airfield POL Storage Area 2	240	202
	Xom Duong Quan Petroleum Products Storage UG East	72	60
	Xom Duong Quan Petroleum Products Storage UG	43	36
	Nui Tap Tinh POL Storage Area	26.6	22.3
	Sac Le POL Storage Area	168	141
	Phu Dong POL Storage Area	420	352
	Thuan Le POL Storage Area	480	403
	My Duc POL Storage Area	120	100
	Thanh Hoa POL Storage Area	118	99
	Ba Don POL Storage Area	472	396
	Phuc Loi Petroleum Products Storage Navy	Unknown	Unknown
	Tho Trang Petroleum Products Storage	140	118
	Ninh Giang Petroleum Products Storage	324	272
	Viet Yen Petroleum Products Storage	1,440	1,210
	Kep Ha Petroleum Products Storage	96	81
	Tien Hoi Petroleum Products Storage	468	393
	Dong Mai Petroleum Products Storage	276	232
	Xom Lang POL Storage	312	262
	Van Hoa POL Storage	144	121
	Phu Lo Petroleum Products Storage NNE UG	228	192
	Jaune Island POL Storage	48	40
	Co Nhue Hoang POL Storage	180	151
	Quang Suoi Petroleum Products Storage	148	124

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## INDEX

Installation Name	Geographic Coordina	tes Page Nos.
	1752N 10550E	B61, B52, X-B61
Xom Duong Quan Petrolum Products Storage UG	2.02	B59, B60, X-B59
Xom Duong Quan Petroleum Products Storage UG East	1714N 10639E	B71, B72, X-B71
My Duc POL Storage Area	1737N 10626E	B91, B92, X-B91
Xom Lang POL Storage	1745N 10626E	B75, B76, X-B75
Ba Don POL Storage Area	1747N 10615E	D9, D10
Thanh Thuy POL Tanks	1832N 10542E	B17, B18, X-B17
Ngoc Son Petroleum Products Storage PUG	1840N 10543E	A23, A24, X-A23
Vinh Petroleum Products Storage	1843N 10544E	B77, B78, X-B77
Phuc Loi Petroleum Products Storage Navy	1847N 10540E	C1, C2
Ky Tran POL Storage Area	1851N 10519E	A21, A22, X-A21
Phu Van POL Storage Area	1856N 10535E	D13, D14
Nho Lam POL Drum Transshipment Area	1812N 10604E	B69, B70, X-B69
Thuan Le POL Storage Area	1840N 10618E	C3, C4
Ky Anh POL Drum Storage	1908N 10534E	B21, B22, X-B21
Yen Hau Petroleum Products Storage PUG	1909N 10537E	B79, B80, X-B79
Tho Trang Petroleum Products Storage	1913N 10521E	A25, A26, X-A25
Phu Qui Petroleum Products Storage	1918N 10543E	B31, B32, X-B31
Son Chau Petroleum Products Storage PUG	1947N 10547E	B73, B74, X-B73
Thanh Hoa POL Storage Area	1950N 10546E	C7, C8
Thanh Hoa POL Distribution Area		B11, B12, X-B11
Bai Thuong Petroleum Products Storage UG Southeast	1951N 10525E	B101, B102, X-B101
Quang Suoi Petroleum Products Storage	2007N 10552E	B15, B16, X-B15
Thuong Thon Petroleum Products Storage UG	2047N 10540E	B29, B30, X-B29
Bang So Petroleum Products Storage PUG	2053N 10553E	B25, B26, X-B25
Ha Noi Petroleum Products Storage UG Thanh Liet (Are	ea 1) 2057N 10548E	D23, D24
Ha Dong POL Trucks	2057N 10549E	B27, B28, X-B27
Ha Noi Petroleum Products Storage UG Thanh Liet (Are	ea 2) 2058N 10546E	D19, D20
Co Trung POL Storage Site	2012N 10615E	A13, A14, X-A13
Nam Dinh Petroleum Products Storage	2024N 10610E	B51, B52, X-B51
Nam Dinh Petroleum Products Storage PUG	2026N 10613E	B83, B84, X-B83
Viet Yen Petroleum Products Storage	2039N 10614E	A19, A20, X-A19
Do Son Petroleum Storage	2042N 10647E	C9, C10
Do Son POL Drum Storage	2043N 10647E	B81, B82, X-B81
Ninh Giang Petroleum Products Storage	2045N 10631E	B87, B88, X-B87
Tien Hoi Petroleum Products Storage	2049N 10635E	•
Hai Phong Petroleum Products Storage	2052N 10639E	A15, A16, X-A15
Thai Lai Petroleum Products Storage	2055N 10637E	B19, B20, X-B19
Thanh Lang Petroleum Products Storage PUG	2058N 10636E	B23, B24, X-B23
Hon Gai POL Drum Storage	2056N 10705E	C5, C6
Sac Le POL Storage Area	2057N 10708E	B65, B66, X-B65
Sac Le POL Tanks	2058N 10709E	D17, D18

## INDEX (Continued)

Installation Name	Geographic Coordi	notos Done No
Son La Petroleum Products Storage		
Co Nhue Hoang POL Storage	2117N 10356E	B13, B14, X-B13
Ha Noi Petroleum Products Thi Cam	2101N 10545E	B99, B100, X-B99
Ha Noi Probable POL Tank Fabrication Area 1	2101N 10545E	B9, B10, X-B9
Ha Noi Probable POL Tank Fabrication Area 2	2101N 10549E	D3, D4
Hanoi/Gia Lam Airfield POL Storage Area	2101N 10549E	D5, D6
Ha Noi Petroleum Products Storage Thanh Am	2102N 10553E	A27, A28, X-A27
Phu Dong POL Storage Area	2103N 10553E	A7, A8, X-A7
Thuy Phuong POL Storage Tanks	2103N 10556E	B67, B68, X-B67
Ha Noi Petroleum Products Storage Duc Noi (Area 4)	2105N 10546E	D1, D2
Ha Noi Petroleum Products Storage Duc Noi (Area 1)	2107N 10551E	B41, B42, X-B41
Ha Noi Petroleum Products Storage Duc Noi (Area 1)	2107N 10552E	B35, B36, X-B35
Ha Noi Petroleum Products Storage Duc Noi (Area 2)	2107N 10552E	B37, B38, X-B37
Nguyen Khe Petroleum Products Storage	2107N 10552E	B39, B40, X-B39
Phuc Yen Airfield POL Storage Area	2110N 10551E	A9, A10, X-A9
Phuc Yen Airfield POL Storage Area 2	2114N 10548E	A3, A4, X-A3
Phuc Yen POL Truck Dispersal Area	2115N 10549E	B57,B58, X-B57
Ninh Binh (POL Tanks in Sampan)	2115N 10550E	D15, D16
Phuc Yen Airfield POL Storage Area 1	2115N 10559E	D7, D8
Phuc Yen Airfield Petrology Brodenic Co.	2116N 10549E	B55, B56, X-B55
Phuc Yen Airfield Petroleum Products Stroage NNE UG Viet Tri Petroleum Products Storage	2116N 10550E	A5, A6, X-A5
Van Lung Petroleum Products Storage	2117N 10526E	A1, A2, X-A1
Van Lung Petroleum Products Storage West UG Van Lung Petroleum Products Storage UG	2120N 10521E	B5, B6, X-B5
Phil Lo Petroleum Products Storage UG	2120N 10522E	B3, B4, X-B3
Phu Lo Petroleum Products Storage NNE UG	2124N 10518E	B95, B96, X-B95
Lang Khe POL Storage Area Under Construction	2127N 10549E	D11, D12
Tung Tu Petroleum Products Storage UG Cu Van Petroleum Products Storage	2129N 10551E	B53, B54, X-B53
Cu Van Petroloum Products Storage	2137N 10543E	B43, B44, X-B43
Cu Van Petroleum Products Storage East UG	2138N 10544E	B45, B46, X-B45
Thai Nguyen Petroleum Products PUG South	2139N 10550E	B1, B2, X-B1
Duong Nham Petroleum Products Storage	2101N 10630E	A17, A18, X-A17
Nui Tap Tinh POL Storage Area	2103N 10648E	B63, B64, X-B63
Dong Mai Petroleum Products Storage	2104N 10629E	B89, B90, X-B89
Hoang Mai POL Storage Area	2114N 10606E	B7, B8, X-B7
Bac Giang Petroleum Products Storage	2116N 10611E	A11, A12, X-A11
Kep Petroleum Products Storage	2123N 10618E	B33, B34, X-B33
Kep Ha Petroleum Products Storage	2123N 10639E	B85, B86, X-B85
Dao Quan Petroleum Products Storage West	2125N 10611E	B49, B50, X-B49
Dao Quan Petroleum Products Storage East	2126N 10612E	B47, B48, X-B47
POL Barge	2151N 10644E	D21, D22
Jaune Island POL Storage	2102N 10722E	B97, B98, X-B97
Van Hoa POL Storage	2112N 10734E	B93, B94, X-B93
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